

EFFECTIVENESS OF A CROSS CULTURE SIMULATION IN THE
DEVELOPMENT OF TEACHER TRAINEES' WORLDMINDEDNESS

By

MINERVA GONZÁLEZ-MILES

A DISSERTATION PRESENTED TO THE GRADUATE
COUNCIL OF THE UNIVERSITY OF FLORIDA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1980

ACKNOWLEDGMENTS

There are no words to express my appreciation for the help and continuous support I received from Dr. Lewis. His professional guidance and assistance throughout the doctoral program kept me on target and elicited from me my best efforts in the writing of this dissertation. As chairman of my doctoral committee, his patience, prompt comments, and suggestions were vital to the completion of this study.

I am very grateful for the advice and support of Dr. Clemens Hallman, cochairman of the committee, Dr. Kenneth Christiansen and Dr. Robert Jester who served on my committee. Their ready advice and encouragement made the stages in this study evolve productively. Also, I want to thank Dr. Gordon Lawrence for his invaluable suggestions, while this study was in the proposal stage.

Dr. Robert Myers, Director of the General Teacher Education Program at the University of Florida, Dr. Robert Blume, Dr. Lynn Oberlin, Dr. Dorene Ross, and Miss Alice Morgan, whose seminars participated in the study, made possible the realization of the present study. They have my sincere gratitude. I would also like to thank the United States Department of Education for the Title VII funding which made my doctoral studies possible.

Heart-felt thanks to my colleague Esther Oteiza who helped me with the administration of the cross culture simulation. Her assistance in this study will always be remembered.

Finally, I want to thank Don, Julie, and Richard who gave me all their cooperation and understanding during the three years I participated in the doctoral program. In particular I wish to thank my mother who, by her example, encouraged me to excel.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	vi
ABSTRACT	vii
CHAPTER	
I INTRODUCTION	1
Statement of the Problem	5
Justification for the Study	6
Definition of Terms	7
Assumptions	8
Hypothesis	8
Procedures	8
Delimitations	12
Limitations	12
Organization of the Research Report	13
II REVIEW OF THE LITERATURE	14
Teacher Training Programs in Multicultural Education	14
Measurement of Multicultural Attitudes	28
Simulation as Teaching Strategy	37
Summary	48
III PROCEDURES	51
Sample Selection and Assignment	51
Treatment of the Groups	52
Instrumentation	57
Data Collection	58
Data Treatment	59
IV RESULTS AND DISCUSSION OF FINDINGS OF STUDY	61
Analysis of Variance	61
Post-Hoc Analysis	66
Limitations	69
Summary	69

TABLE OF CONTENTS (Continued)

CHAPTER	Page
V CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	70
APPENDICES	
A INTRODUCTORY STATEMENTS AND ORIENTATION SESSION	76
B RULES BY WHICH THE ALPHA AND BETA CULTURES ARE GOVERNED	78
C THE WORLDMINDEDNESS SCALE	82
D LEAST SQUARE MEANS FOR TREATMENT AND COMPARISON GROUPS	85
REFERENCES	86
BIOGRAPHICAL SKETCH	95

LIST OF TABLES

Table	Page
1 Subscale Structure of the Worldmindedness Scale	57
2 Mean and Standard Error of Mean for Each Item of the Worldmindedness Scale	63
3 Mean and Standard Error of Mean for Each Subscale of the Worldmindedness Scale	66
4 Analysis of Variance Summary Table for Worldminded- ness Posttest Subscale Scores	67
5 Before-and-After WS Scores of 15 Teacher Trainees who Participated in Cross Culture Simulation	68

Abstract of Dissertation Presented to the Graduate Council
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

EFFECTIVENESS OF A CROSS CULTURE SIMULATION IN THE
DEVELOPMENT OF TEACHER TRAINEES' WORLDMINDEDNESS

By

Minerva González-Miles

December 1980

Chairman: Arthur Lewis

Cochairman: Clemens Hallman

Major Department: Curriculum and Instruction

Concern for multicultural education has been evident for the better part of this century. In the 1980s, there is an urgent need for training programs that enable teacher trainees to identify cultural differences and learn behaviors acceptable and appropriate in different cultural settings. The need is so great that the National Council for Accreditation of Teacher Education requires multicultural education as a component of accredited teacher education programs.

One of the major goals of multicultural education, in teacher training, is to help teacher trainees develop respect for the various cultural and ethnic groups who have built the United States and continue to contribute to its vitality. That is, the multicultural education process has focused in developing, among teacher trainees, a value orientation which will favor a world-view of the problems of humanity, a worldminded attitude.

The purpose of this study was to determine the effectiveness of one particular strategy, the cross culture simulation Bafá Bafá, in the development of teacher trainees' worldmindedness. It was hypothesized that there would be no significant difference ($p < .05$) in world-view scores as measured by pretests and posttests scores for the Worldmindedness Scale as a function of treatment and comparison group assignment.

Seventy-four teacher trainees enrolled in the Professional Studies in Elementary Education course at the University of Florida participated in the study in the Spring quarter of 1980. The Solomon 4 Group, pretest-posttest research design was followed. Two treatment groups participated in the cross culture simulation Bafá Bafá, while two comparison groups only received pretests and posttests. The Worldmindedness Scale served as the measuring instrument.

The objectives of the cross culture simulation were: (a) to create a situation which would allow participants to explore the idea of culture; (b) to create feelings which would be similar to those an individual would likely encounter when he or she would travel to a foreign country; and (c) to give participants experience in observing and interacting with a different culture. The length of the simulation was approximately 50 minutes with a half-hour for discussion or debriefing. The researcher, together with a colleague, administered the cross culture simulation.

Four of the teachers in charge of the Professional Studies in Elementary Education course administered the Worldmindedness Scale instrument to teacher trainees who participated in the study. The

Worldmindedness Scale is a 32 item Likert-type scale designed to emphasize judgments related to the concept of worldmindedness. The possible range of scores on the Worldmindedness Scale was from 0, for extreme national mindedness, to 192 for extreme worldmindedness, with 96 as the theoretical neutral point.

Collected data were analyzed using a 2 x 2 analysis of variance procedure as executed by Statistical Analysis System, General Linear Model procedure for unbalanced data, and a t-test for non-independent samples. The results of the 2 x 2 analysis of variance, posttests design only, revealed no significant difference in worldmindedness scores between teacher trainees after they participated in a cross culture simulation. The null hypothesis was retained. The Post-Hoc analysis did not show that the posttest scores were significantly different from the pretest scores for Group 1 indicating that the simulation exercise was not a successful strategy for increasing worldmindedness among the group studied. However, due to the limitations faced during the investigation--non-random and small sample, mortality and reactive effects, length of treatment--it is not possible to generalize regarding the effectiveness of the cross culture simulation on developing worldmindedness.

CHAPTER I

INTRODUCTION

In the United States both heritage and culture have contributed to the fact that most citizens assume their language is universal and their gestures are understood by all humans throughout the world (Fulbright, 1979, p. 15). Education in the United States appears to have reflected and possibly contributed to this belief. For example, at one time educators saw their role as assimilating immigrants from around the world into United States culture. In 1919, Ellwood P. Cubberly, a United States educator, outlined the assimilation task of the schools:

In our land, despite all our admirable progress, we still have a large task before us, and the task increases with the passing of years. We have here the makings of a great Nation, but the task before us is to make it. The raw materials--Saxon and Celt, Teuton and Slav, Latin and Hun--all are here. Our problem is to assimilate and amalgamate them all into a unified Nation. . . . (p. 503)

More recently, King (1971) expressed the opinion that education in the United States has not been concerned with producing a sophisticated and worldly wise citizenry. Furthermore, King stated that United States education has practiced cultural narcissism and that schools have been a kind of mirror in which United States citizens have looked at themselves and have come to the conclusion that they are the fairest in the universe (p. ix).

Baty (1971) stated that educators traditionally have viewed cultural diversity as a liability in the classroom (p. 13) which has made difficult the implementation of cultural awareness education--that is training in the identification of cultural differences. Baty is of the opinion that "cultural diversity must be viewed as an asset" (p. 13) and not as a problem area. He maintained that once cultural diversity is perceived as an asset, "the probability increases that steps will be taken to recognize diversity in the classroom" (p. 13).

Brembeck and Hill (1973), through repeated observation, found that teachers and planners are reluctant to identify cultural differences. However, once these differences are identified, Brembeck and Hill pointed out that teachers downgrade such cultural differences and "see few possibilities for their positive use in stimulating a child's learning" (p. vii).

Burger (1973) recommended that teachers working in a cultural pluralistic society "see ethnic characteristics as powerful resources for learning, since they spring from the student's primary culture" (p. 18). He suggested that these ethnic characteristics rather than being denied in the classroom, should be used to promote educational achievement (p. 18).

The process of becoming aware of cultural differences is not easy. Teachers require specific training to identify cultural differences. An understanding of other cultures begins with an understanding of one's own culture. Landes (1965) asserted:

Teachers act according to their own culture patterns, . . . Teachers' family cultures, like the minorities', vary greatly. Systematic understanding of their traditional backgrounds, familial and professional, enables teachers to grasp the values that move them. They require sufficient training in cultural analysis to follow how these values accord with pupils' backgrounds, how they affect their teaching and other communication at school. . . . (p. 48)

Brown (1963) believed that understanding the ways of other people would increase the individual's self-knowledge and objectivity (p. 3). Earlier, Allport (1954) stated "the fundamental premise of intercultural education says in effect, no person knows his own culture who knows only his own culture" (p. 486).

There is an urgent need for training programs that enable teachers to identify cultural differences and learn behaviors acceptable and appropriate in different cultural settings. The need is so great that the National Council for Accreditation of Teacher Education (NCATE) requires multicultural education as a component of accredited teacher education programs (Standards for Accreditation, 1977).

Gollnick (1977) referred to multicultural education as a challenge for teacher education. Responding to the challenge, Gollnick noted that several states "require specific training in multicultural education" (p. 57). For example, Florida, one of eight states where teachers must pass a competency test for certification, requires teachers to "identify and/or demonstrate behaviors which reflect a feeling for the dignity and worth of other people including those from other ethnic, cultural, linguistic and economic groups" (The Florida Teacher Certification Exam, n.d.).

The goals of multicultural education include gaining an understanding of one's own cultural heritage and a knowledge and appreciation of the cultural heritage of others (cultural awareness). The goals also include developing respect for the various cultural and ethnic groups who have built the United States and continue to contribute to its vitality. Gold (1977) refers to this goal as multiculturalism. This leads to yet another goal of teacher education in multicultural education: to help teachers develop "a frame of reference, or a value orientation which favors a world-view of the problems of humanity, with mankind, rather than the nationals of a particular country, as the primary reference group" (Sampson & Smith, 1957, p. 105). Sampson and Smith (1957) defined this frame of reference or value orientation which favors a world-view as worldmindedness.

Multiculturalism and worldmindedness are attitudes which have in common respect for the varied cultures of the world without favoring a culture in particular. Both concepts embody an attitude of "world citizenship" (Murphy, 1945). There is also a direct relationship between cultural awareness and worldmindedness. The attitudes associated with worldmindedness having to do with religion, immigration, government, economics, patriotism, race, education, and war (Sampson & Smith, p. 100) are related to some of the "primary message systems" (Hall, 1959, p. 45) of a given culture. These primary message systems, also defined by Hall as human activities, are interaction, association, subsistence, territoriality, learning, play, and defense (Hall, pp. 45-46). Hall maintained that many of these human activities are not even experienced, "for they are accomplished out-of-awareness"

(p. 62). Hence, there is a need to provide teacher trainees with experiences that will enable them to bring into focus a sense of cultural awareness that will lead to increased worldmindedness.

The NCATE Standards for Accreditation of Teacher Education (1977) imply all three goals for multicultural education: cultural awareness, multiculturalism, and worldmindedness:

Multicultural education is preparation for the social, political, and economic realities that individuals experience in culturally diverse and complex human encounters. These realities have both national and international dimensions. (2.1.1, p. 4)

The preparation of teacher trainees for those human realities which have both national and international dimensions has to do with worldmindedness--an individual's frame of reference which favors an international orientation. If it has been determined that it is urgent to develop a competency among teacher trainees which reflects an attitude of worldmindedness, then the question is: What are effective ways to accomplish this goal?

Statement of the Problem

The purpose of the present study was to determine the effectiveness of one particular strategy, a cross culture simulation, in the development of teacher trainees' worldmindedness. Specifically, the question was asked: Will participation in the cross culture simulation Bafá Bafá change teacher trainees' worldmindedness as measured by the Worldmindedness Scale? The teacher trainees who participated in the study were preparing to be elementary school teachers and were enrolled in the General Teacher Education program at the University of Florida in Gainesville, Florida.

Justification for the Study

Concern for multicultural education has been evident for the better part of this century. In the 1980s, as indicated previously, not only is NCATE requiring the development of a multicultural competency among teacher trainees, but some states, such as Florida, are also requiring it for teaching certification (Robinson & Mosrie, 1979, p. 263). The Carnegie Corporation in its Annual Report of the Fiscal Year 1979 stated that in order to improve bilingual/multicultural education programs what was needed now were "more and better trained teachers" (p. 20).

Klassen, Gollnick, and Osayande (1979) have outlined the need to provide preservice teachers with experiences in one or more cultural settings different from the preservice teachers' cultural background (p. 12). The opportunity to travel and directly experience different cultures is often limited. Accordingly, Klassen et al. proposed that teacher training programs provide preservice teachers with experiences in multicultural and/or various monocultural classroom situations through supervised simulations (p. 18). Though simulation, as a teaching strategy, has been used in the past in teacher training (Cruickshank, 1969; Kersh, 1961; Twelker, 1967), the effectiveness of simulation in the field of multicultural education has not been studied. Tansey (1970) stated that the research needed on simulation as training strategy was "not concerned primarily with the production of materials but with finding evaluative systems that would enable the worth of the basic technique to be measured" (p. 300).

To sum up, the urgent need to have better trained teachers in the field of bilingual/multicultural education, the NCATE recommendation to include experiences in teacher education which examine the dynamics of diverse cultures, and the recommendation put forward to provide preservice teachers with experiences in cultural awareness through supervised simulations (Klassen, Gollnick, and Osayande, 1979) prompted the present study. The study was designed to increase the body of knowledge regarding teaching strategies which may improve the quality of teacher training programs in one specific phase of multicultural education--worldmindedness.

Definition of Terms

Dependent variable. Defined as the presumed effect in this study, it is worldmindedness as measured by Sampson and Smith's (1957) Worldmindedness Scale which contains eight dimensions of a person's view toward the world.

Independent variable. The independent variable or presumed cause in the present investigation is the cross culture simulation teaching strategy utilized.

Simulation. In this study, simulation is defined as an "analogue, a reproduction of the reality" (Tansey & Unwin, 1969, p. 13).

Worldmindedness. As defined by Sampson and Smith (1957), it is "a frame of reference, or value orientation, favoring a world-view of the problems of humanity, with mankind, rather than the nationals of a particular country, as the primary reference group" (p. 105).

Worldmindedness change. In this study, worldmindedness change refers to the difference between the pre and posttest scores for each subject.

Assumptions

The assumptions in this study were:

- a) Increasing the worldmindedness of teachers will contribute to the goals of multicultural education;
- b) Simulation activities can increase worldmindedness;
- c) The Worldmindedness Scale (WS) is a valid and reliable instrument to measure university students' value orientations associated with worldmindedness.

Hypothesis

Null: there will be no significant difference ($p < .05$) in worldmindedness scores as measured by pretests and posttests on subscale scores for the Worldmindedness Scale as a function of treatment and comparison group assignment.

Procedures

The research design is presented as follows: (1) sample selection and assignment; (2) treatment of the groups; (3) instrumentation; (4) data collection; and (5) data treatment.

Sample Selection and Assignment

Subjects who participated in this study were education majors enrolled in the Professional Studies in Elementary Education course at the University of Florida in the Spring quarter of 1980. There were

74 subjects included in the study. Sample selection was based on course section assignment. Four group sections participated in the study. Two of the group sections were assigned to treatment or experimental condition; two group sections acted as comparison groups. Assignment of four groups to treatment and comparison conditions was done at random.

Treatment of the Groups

Treatment of the groups consisted of participation in the cross culture simulation Bafá Bafá (Shirts, 1977). This cross culture simulation "was developed for the Personnel Research and Development Center, U.S. Navy to help prepare Navy personnel for living in another culture" (Weil & Joyce, 1978, p. 225). The main goal of this cross culture simulation is to

. . . foster an understanding of the concept of culture, create feelings similar to those encountered when in another culture, and provide experience in observing and interacting with a different way of life. (Weil & Joyce, p. 225)

The length of the cross culture simulation Bafá Bafá was approximately 50 minutes (Shirts, p. 10). A debriefing period followed the simulation in which at least ten questions (Shirts, pp. 19-20) were discussed. Treatment was administered by the researcher and a colleague on the 21st and 28th of April, 1980.

Instrumentation

The dependent variable in this study was worldmindedness as measured by the Worldmindedness Scale. The Worldmindedness Scale is a "Likert-type scale designed by Sampson to emphasize value judgments

related to the concept of world-mindedness" (Smith, 1955, p. 470).

It contains 32 items that correspond to eight dimensions of the worldminded frame of reference (see Appendix C). The dimensions are religion, immigration, government, economics, patriotism, race, education, and war. In responding to the scale items, subjects participating in the study were asked to underline one of the following six degrees of agreement and disagreement: strongly agree (SA), agree (A), mildly agree (MA), mildly disagree (MD), disagree (D), and strongly disagree (SD).

The possible range of scores on the Worldmindedness Scale (WS) is from 0, for extreme national-mindedness, to 192 for extreme world-mindedness, with 96 as the theoretical neutral point (Sampson & Smith, 1957, p. 102). In order to score the WS, the procedures indicated in Shaw and Wright (1967, pp. 203-204) were followed.

Data Collection

Data were collected according to the "Solomon 4 Group Design" (Campbell & Stanley, 1963, p. 24). However, in this study the Solomon design was treated as a quasi-experimental design. This was due to the impossibility of randomizing subjects' selection and the difficulty in obtaining the same level of equivalence among the members in the four groups participating in the study. The quasi-experimental design for this study was:

Group 1	O_1	x	O_2	
Group 2	O_3		O_4	

Group 3		x	O_5	X Treatment
Group 4			O_6	O Observation

Four teachers in charge of the Professional Studies in Elementary Education Course, at the University of Florida, administered the Worldmindedness Scale to subjects who participated in the study. The first set of observations (O_1) was collected on April 7, 1980. The last set (O_4), was collected on May 22, 1980. Of the 74 subjects who participated in the study, only observations collected from 59 subjects were usable. This was due to mortality or a differential loss of respondents. That is, out of the two groups (Group 1 and Group 2) which received pretests and posttests, 15 subjects were absent during the administration of the posttest. Posttests were administered approximately a week and a half after treatment. Out of 1,888 data points collected, only 13 were missing.

Data Treatment

The data from posttest scores were analyzed using the Statistical Analysis System (SAS), General Linear Model (GLM) procedure. GLM executed a 2×2 analysis of variance for unbalanced data (Statistical Analysis System, 1979, p. 245). The 2×2 analysis of variance design (Campbell & Stanley, 1963, p. 25) was:

	No X	X
Pretested	O_4	O_2
Unpretested	O_6	O_5

The scores from each dimension or subscale of the Worldmindedness Scale were considered as separate dependent measures and were analyzed independently. There were F ratios obtained for the following subscales: religion (S_1), immigration (S_2), government (S_3), economics (S_4), patriotism (S_5), race (S_6), education (S_7), and war (S_8).

Delimitations

Though 74 teacher trainees participated in the study, only data collected on 59 subjects were usable. The selection of subjects to participate in the study was based on class assignment to the Professional Studies in Elementary Education course during the Spring quarter of 1980. There were four class sections in the study. Class section assignment to treatment and comparison groups was at random.

Treatment consisted of the cross culture simulation Bafá Bafá written by Shirts (1977). The Worldmindedness Scale was used as the measuring instrument to determine if teacher trainees' worldmindedness was affected after treatment.

The study focused on determining more than immediate effects; therefore, there was a time interval (a week and a half) left between the cross culture simulation and the administration of posttests.

Limitations

The internal validity of the study could have been affected due to a "differential loss of respondents" (Campbell & Stanley, 1963, p. 5). That is, only those subjects who took both the pre and posttest within that group were used in the study. Therefore, out of 74 subjects participating in the study, only 59 observations were usable.

External validity could have been affected due to "reactive arrangements" (Campbell & Stanley, 1963, p. 20). That is, subjects who participated in first administration of treatment could have talked about it to students who participated in second administration of treatment. Also, the class sampling procedure used in the study

"would be expected to increase the sampling error as compared with a random sampling of individuals" (Hovland, Lumsdaine, & Sheffield, 1949, p. 29).

Organization of the Research Report

The research report is organized as follows: Chapter II includes a review of related literature. Chapter III provides a description of the procedures followed in the study. Chapter IV includes a report and analysis of findings of the study, and Chapter V presents conclusions, implications and recommendations for additional research.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature was confined to three major areas: (1) teacher training programs in multicultural education, (2) measurement of multicultural attitudes, and (3) the use of simulation as a teaching strategy in the training of preservice teachers and in the field of multicultural education. The literature on teacher training programs in multicultural education was reviewed as it pertained to (a) the need for teacher training programs in multicultural education, (b) programs and strategies for increasing multicultural awareness, and (c) research studies on programs and strategies for increasing multicultural awareness. The area of measurement of multicultural attitudes was subdivided thus: (a) instruments to measure multicultural attitudes among pre-school and elementary school students, and (b) instruments to measure multicultural attitudes among college students. Finally, the literature on simulation as a teaching strategy was reviewed according to (a) simulation in the training of preservice teachers, and (b) simulation in the field of multicultural education.

Teacher Training Programs in Multicultural Education

The Need for Teacher Training Programs in Multicultural Education

The passage of Title IX of the Elementary and Secondary Education Act, known as the Ethnic Heritage Studies Program, challenged the

melting pot myth in the United States (Rivlin & Gold, 1975). The acceptance and recognition of cultural differences was underlined by the American Association of Colleges for Teacher Education in their statement on Multicultural Education, "No One Model American" (1973). The report emphasized that "more important than the acceptance and support of these differences is the recognition of the right of these different cultures to exist" (p. 265). Cultural pluralism viewed the United States as a multicultural society and stressed a new interpretation of the word "different." Different simply meant different, no better than or worse than (Rivlin & Gold, 1975).

Sutman, Sandstrom, and Shoemaker (1979) maintained that the origin of the current teacher programs in multicultural education can be traced to the writings of Walter Kaulfers and Holland Roberts. Kaulfers and Roberts coauthored two major publications in the 1930s. One publication dealt with a correlated curriculum for teachers of English and the other dealt with a new approach to the teaching of English and foreign languages. This new approach consisted of a unified program which advocated language arts with a cultural basis (p. 2). That is, these publications were "originally designed to enhance bicultural understandings among elementary school children in bilingual communities in the agricultural valleys of California" (Sutman, Sandstrom, & Shoemaker, 1979, p. 2). Sutman et al. stated that Kaulfers and Roberts' curriculum model "was taken up in French-speaking areas of Louisiana and Canada and in other linguistic enclaves across the country" (p. 2).

World War II brought to a stop the propagation of school programs with an emphasis on bilingual/bicultural understanding in the United States. However, the numerous language training programs in the armed services turned out to be an "effective model for multilingual fluency" (Sutman, et al., p. 3) and multicultural understanding, as well. The training of teachers in multicultural education saw a new approach during the 1950s and 60s. The University of Michigan and Teachers College, Columbia University, through their Teaching of English to Speakers of Other Languages (TESOL) programs incorporated the teaching of a language and teaching about the culture where that language was spoken. Sutman and colleagues referred to that approach as the teaching of "language-in-its-culture" (p. 3). Toward the late 1960s, two new books in the field of teacher education in multicultural education appeared: A Report on the Conference on World Education and The World and the American Teacher. These books were written by Harold Taylor and published by the American Association of Colleges for Teacher Education (AACTE). In the report on the conference of world education (1967), Taylor called for the development of multicultural perspectives for all college graduates, and specially for future teachers. In particular, Taylor's (1968) book on the world and the American teacher described a two year study which looked into the problems and possibilities for extending the education of teachers to include education in world affairs and cultural pluralism.

During the decade of the 70s the rationale for including multicultural education in teacher education was based upon two assumptions: first, teachers have had little knowledge of ethnic and

racial cultures other than their own; and second, teachers have matured in a society that has placed little positive value on cultural differences (Baker, 1978). Derived from this rationale, Schwartz and Isser (1978) suggested that one goal of multicultural education should be to promote in the schools a positive and realistic view of a variety of ethnic cultures. Such a goal could be met through appropriate teacher education as outlined by Imig (1972).

Imig maintained that by concentrating major efforts on teacher education a philosophy reflecting a world-view could find its way into American education. He proposed that not only the development of teacher trainees' world-views be given priority, but also the development of teacher trainees' competencies to solve problems in a multicultural society. Bellon (1971) argued that "preparing teachers to help solve problems created in our multicultural society must be given a high priority" (p. 33). Taba (1953) had earlier proposed that in the field of intergroup relations, teacher training efforts should emphasize preparation for experimental work, "the search for better answers and techniques" (p. 6), and that teachers needed to learn to be satisfied with tentative answers and not to expect positive answers to everything (p. 6). Taba pointed out:

Most people, even those who had worked in the field of intergroup education had limited sensitivity toward people different from themselves and were therefore inclined to prejudicial feelings and behavior. (p. 6)

Klassen and Gollnick (1977) referred to the lack of objectivity among educators in the field of multicultural education. They stated

that "present educational inconsistencies were often caused by the educator's distorted perception about the cultural differences of students" (p. v). Grambs (1968) also wrote about educators' lack of objectivity. He maintained that "many points at which lack of inter-group understanding makes conflict, tension, and unhappiness are outside the immediate awareness of the teacher" (p. 2). In order to help preservice teachers increase their objectivity in the field of multicultural education, Bell (1975) suggested:

In the building of teacher training programs emphasis needs to be given to (1) the competencies that all teachers need no matter where or whom they teach, in order to help all students understand the great variety of different cultures that exist and to appreciate the strength and vitality that such diversity contributes to the world in which we live, and (2) the kinds of competencies that uniquely relate to working with particular groups. (p. vii)

As a consequence of the proposals by groups and individuals, various teacher education programs and strategies have been developed to help teachers increase their awareness in multicultural education.

Programs and Strategies for Increasing Multicultural Awareness

Smith, Cohen, and Pearl (1969) outlined a teacher education program directed at creating teachers capable of dealing with children of all races and backgrounds. This program stressed the need for systematized instruction of teacher trainees. Also, the program specified the need for and use of extensive theoretical preparation of teacher trainees prior to the field experience (p. 134). Smith and colleagues emphasized that effective training programs prepare teachers to examine the biases on instructional methods and to select subject matter designed to serve the needs of all interests and groups (p. 134).

Recently, Susskind (1978) described a college-level ethnic studies course which would help students understand cultural pluralism by involving them in learning activities such as interviewing immigrants, role playing, and eating an ethnic meal. Gayles (1975) also emphasized the importance of involving teacher trainees in learning activities. Specifically, Gayles advocated a multicultural professional laboratory program which would provide an opportunity for directing prospective teachers toward the development of self-analysis and self-improvement as teachers and as students. Gayles believed that the multicultural laboratory would allow teachers to discover their own strengths and would show them how to capitalize on these strengths in the process of learning how to function and adjust in a culturally diverse society.

Earlier, Paulsen and Wilson (1974) created the Cultural Literacy Laboratory at the University of Arizona. The goal of their laboratory was "to provide educators with crosscultural adaptive skills needed to successfully reduce the effect of culture shock and to accommodate to cultures that are different from their own" (p. 1). Paulsen and Wilson maintained that one of the important aspects of the cultural literacy laboratory was to "provide the student with some sense of culture shock and the opportunity to ameliorate this shock with continuing guidance" (p. 2). The cultural literacy laboratory, an instructional unit of approximately four weeks duration, included three stages: (1) readiness, (2) impact, and (3) diagnosis and transfer. The readiness stage, which consisted of 10 to 12 class hours, attempted to develop interaction skills, cross-cultural

communication skills, field work techniques, interviewing techniques, use of informants, use of cues (verbal and nonverbal), observation and participation and the recording of events in a field diary. The impact stage consisted of students carrying out impact tasks in the target culture where students were assigned. These tasks involved field work, practicing cross-cultural communication, and employing the skills developed during the readiness stage. The diagnosis and transfer stage, a minimum of four hours, emphasized the identification of the skills developed during the readiness stage and their application to professional roles and other learning situations (p. 9).

Shorter and more intensive programs in cultural awareness have also been used. One program emphasized short lectures with inclusion of audiovisual materials (Adult Education Training Handbook for Cultural Awareness, 1975). The topics recommended for presentation during the lectures were cultural awareness in America, stereotyping, implications of culture for adult education, culture conflict and curriculum, spaces between people, cross-cultural communication, and getting in touch with feelings. Nine Curt.(1976). developed a similar program as a part of a teacher training course on cultural awareness at the University of Puerto Rico. The emphasis in this course was on the importance of nonverbal communication. Through role playing and small group discussions, teacher trainees practiced nonverbal communication skills applicable to a different culture. Aspects of nonverbal communication included in Nine Curt's teacher training course were smiling, staring, eye contact, silence versus noise, laughter, play, greetings and farewells.

Mohr (1973) maintained that the development of practical skills of teaching could be accomplished through a variety of first-hand experiences with young people of multicultural, multiracial, and multiclass backgrounds in school and community settings. Aside from these first-hand experiences, Mohr suggested for the teacher trainee to participate in microteaching, peer teaching, simulations, and actual classroom teaching.

Bronaugh (1977) suggested that teacher trainees could receive help, in the training process, from experienced teachers. This teacher-to-teacher trainee help could be accomplished through a program in which resource teachers would help prospective teachers develop interpersonal skills that would foster better relationships among teachers, parents, and students of different racial and ethnic backgrounds. The Instructional Development Institute for Teacher Trainees in Michigan State University (1969) not only used resource teachers to help prepare teachers of cross cultural groups, but also utilized the media in response to the need for a systematic approach in defining instructional problems for cross cultural groups and effecting feasible solutions.

Kentworthy (1970) stated that the possibilities in increasing cultural awareness in teacher training covered a wide spectrum ranging from using action pictures, tapes and film strips to the establishment of research centers in universities. Kentworthy maintained that these research centers could provide in-depth information to teacher trainees. Baty (1971) proposed an action-research model that would include presentations by community leaders with small group discussions

as a follow up (p. 13). Baty's research model had as a rationale the need for acculturation. He stated that the accommodation process, in the development of multicultural awareness, "should be a two-way exchange involving teachers, administrators, and ancillary staff as well as their children, their parents, and relatives" (p. 12).

Aragon (1973) proposed the use of the Esperanza model to increase cultural awareness. The awareness phase in Aragon's teacher training model included four stages: (1) discovery of self-needs; (2) study of cultural diversity; (3) analysis of cultural conflicts; and (4) discussion of implications of cultural conflict (pp. 81-82). Aragon proposed, as teaching strategies to implement this model, group discussions and participation of speakers knowledgeable in the field of cultural pluralism. According to Aragon, when teacher trainees completed the "awareness" stage they would be able to identify their own needs. Furthermore, teacher trainees would have been provided with content on cultures; they would have participated in identifying the areas where cultures conflict; and, they would have been able to draw the implications these conflicting areas have for teaching (p. 82).

Taylor (1975) suggested that teacher trainees should have an internship period through which they come face-to-face with multicultural situations which are resistant to change (p. 96). Taylor maintained that the intern should be an active decision-maker and change agent rather than a passive receiver. Ferrin, Howell, and Sandoval (1975) also recommended an internship program with a multicultural focus. They were of the opinion that interns should also be

active and should help determine the learning needs of children from different cultural backgrounds.

Several programs and strategies for increasing multicultural awareness have used a cross-discipline approach incorporating the disciplines of anthropology and linguistics. Landes (1965) described the Claremont Project in anthropology and education which was designed to show educators what culture was about and the particular manifestations of culture in different traditions. This program focused on developing competencies which would help educators recognize specific cultural factors which influence individuals and group conduct. The program's goal included showing educators how families pass their ancestral cultures on to succeeding generations, even when they seem assimilated to another culture, and helping educators understand how a pupil might manifest his or her special heritage in the classroom and how a teacher might inadvertently do the same (p. 15). Later, Burger (1968) recommended the application of educational anthropology to give prospective teachers an understanding of an interethnic classroom. Politzer (1978) discussed the important potential contribution of sociolinguistics and psycholinguistics to the training of teachers in multicultural education. Teaching methodology can be improved when teachers, through a knowledge of psycholinguistics and sociolinguistics, can understand the language of the target group and their cultural background.

Research Studies on Programs and Strategies for Increasing Multi-cultural Awareness

Bennett (1979) conducted a research study of

. . . the changes in pre-service teachers' perceptions of racial and cultural groups after completion of an undergraduate secondary social studies methods course consisting of lectures, resource persons movie discussions, micro-teaching experiences and group presentations. . . . (p. 233)

The sample consisted of 39 students enrolled in a preservice secondary school social studies course. The experimental group, Group I, was given direct classroom instruction, emphasizing a multicultural approach to teaching secondary social studies. These students spent two days a week, four and a half hours each session, for ten weeks in a secondary social studies methods class. The comparison group, Group II, was given classroom instruction, emphasizing a competency-based approach to teaching secondary social studies. These students spent two days, five hours each session, for eight weeks in the methods class (p. 234). The instrument "Survey on Groups," designed by Schuman and Harding (1964) was used as both the pre and posttest in Bennett's study. Posttest results showed significant differences between the experimental and the comparison groups in their attitudes toward different cultural groups. Bennett concluded from his study "that perceptions of preservice teachers regarding racial and cultural groups can be altered" (p. 235).

Baker (1973) conducted a study designed to determine changes in the perception of ethnic groups held by student teachers participating in a workshop on multicultural education. The workshop was held for a two-week period. The sample population consisted of 299

student teachers who planned to intern during the following year. The Survey on Groups instrument was used to administer the pre and posttests to all of the students who participated in the study (p. 306). This instrument consisted of 48 pairs of generalizations with each item referring to a characteristic of an ethnic group. One third of the items included in The Survey on Groups instrument dealt with blacks, one third with Jews, and one third with a variety of other minority groups, i.e., American Indians, Puerto Ricans, Japanese, Chinese, and Mexican Americans (p. 307). Baker's workshop activities included: (1) a lecture entitled "The Need for Multicultural Education," (2) participation in a class session in which multicultural guidelines for classroom observation and assessment were described and distributed, (3) observation for four days in settings where participants would be doing student teaching, and (4) attendance for four days in a daily three-hour period of lectures, films, and discussions on the cultures of several ethnic groups (p. 306). Baker's conclusion was that student teachers' perceptions can be altered through training. However, "the extent to which training can be effective depends on the type, duration and intensity of the training. A workshop approach is not adequate if it is to be the only source of training" (p. 307).

Harty (1975) designed a research study based on 50 preservice teachers' evaluations of community-based experiences in poor minority settings. The teachers, selected at random, were asked to evaluate their experiences in student teaching community-based placement sites. The field placement was one feature of a program designed to prepare

teachers to work in a multicultural setting with children who have been least effectively served by society. Field sites included inner city and desegregated suburban schools, bilingual schools, and Indian reservations. As a result of the study, Harty conjectured that "non-school based settings are more desirable than school-based settings for preparing and providing learning experiences for prospective teachers in the community cultural heritage of poor minority groups" (p. 34). Harty also concluded that the cultural origin of preservice teachers played no significant role or made no difference in their evaluation of the field experience.

Regarding teaching strategies for increasing multicultural awareness, Dekock (1969) developed the educational simulation, Sun-shine, which is related to racial problems in a typical American city. In order to determine if this simulation was effective in changing racial attitudes, Dekock conducted a research study with 398 high school juniors enrolled in the American studies classes at El Capitan High School, a suburban San Diego high school in Lakeside, California (p. 181). Before the simulation began, students took a 30-item racial attitudes test written by Thomas Gillette. The simulation was conducted during a three-week period. During the first phase of the simulation, known as "rebirth" (p. 181), students drew from a hat colored identification tags (white, tan, brown, black) whose color signified ethnic background. On the tags were other portions of the students' identities: yearly income, vocation, education, street address, and neighborhood. The students then pinned their tags and moved to "chairs grouped into various streets and neighborhoods with

varying degrees of segregation. For example, one of the six neighborhoods is Dead End, a black ghetto with tenements, rental housing under \$10,000" (p. 181). Subsequently, students worked with the history and literature of the American Black, "all the time simulating their identities" (p. 181). Posttest procedures included tests of the knowledge of 19 key generalizations about the history of the black, an anonymous attitude test about racial relations in America, and an essay test evaluating the simulation experience itself (p. 182). DeKock concluded: "Statistical evidence, based upon pre- and post-attitude tests, demonstrates that this simulation changes students' racial attitudes" (p. 181).

Noesjirwan and Freestone (1979) conducted a study to determine the effects of the Culture Game, a simulation of culture shock. The sample for this study comprised a total of 176 Australian subjects, "both male and female university students, or professional groups attending some sort of inservice training course" (p. 194). The purpose of the Culture Game was to reproduce operating rules and values which underlined and defined the cultures of Indonesia and Australia (p. 200). During the simulation, both cultures had the same task to perform. This common task symbolized the human need to survive, to produce and to consume. In each culture, a "harvest" occurred about every 15 minutes (p. 192). Noesjirwan and Freestone explained that "from the harvest, players obtain various tokens, only some of which have value. The object of the game is to accumulate those tokens that have value," in order "to trade the correct combination of these at the 'bank' for gold tokens" (p. 192). Each culture had a leader. The instructions

for the common task were provided in the general rules which were given both cultures (p. 192).

Noesjirwan and Freestone's study presented data collected from 13 occasions on which the simulation was played. On each occasion there were between 14 and 21 players, or a total of 176, distributed equally between the two "cultures" (p. 194). Each time, the simulation ran for two hours. At the beginning of each simulation, the researchers divided the participants randomly into two groups. They escorted each group into a separate room, introduced the group to the leader and received orientation on the rules of the assigned culture. Each culture was left to run its own affairs under the direction of the culture leader. At the end of the six harvest sessions, a debriefing discussion period was held. The main purpose of the debriefing was to allow the players to work through their experiences within the game, so that they could gain an insight into their own behavior and the rest of the participants' behavior (p. 194). Pre and posttest results, in the form of two questionnaires, indicated that "while there [were] some discrepancies, the correspondence in response between the 'game' and 'real life' situations [was] remarkably close" (p. 202). It was also found that "the results of the cross-cultural contact within the game were . . . suggestive of the culture shock the game was intended to simulate" (p. 203).

Measurement of Multicultural Attitudes

A review of the literature has shown that existing scales to measure cultural attitudes may be classified into two categories:

(1) instruments to measure cultural attitudes among pre-school and

elementary school students; and, (2) instruments to measure cultural attitudes among high school and college students.

Instruments to Measure Cultural Attitudes among Pre-School and Elementary School Students

Horowitz (1939) developed one of the first scales to measure cultural attitudes among nursery children. Horowitz's scale employed photographs of individual black and white American children. Children's cultural attitudes were assessed by showing them the photographs in pairs of black and white children and asking them which child they would select as a favorite or preferred playmate. Ten years later, Radke and Sutherland (1949) used an open-ended written questionnaire to measure children's underlying cultural values and attitudes. Radke and Sutherland were concerned primarily with children's concepts and attitudes about minority and majority United States groups. Later, Johnson (1950) developed a scale which used photographs as a projective technique for the analysis of racial attitudes of Anglo and Mexican-American subjects.

Aside from scales which include photographs, and written questionnaires, instruments which have used the drawings of dolls have been used to measure ethnic attitudes among black and white United States pupils (Clarke, K. B. & Clarke, M. K., 1955; Goodman, 1964; Radke & Trager, 1950). In administering this type of instrument children were asked to indicate their favorite doll. Doll drawings differed only in skin color. In particular, Clarke and Clarke's instrument focused on skin color as a factor in racial identification of blacks by pre-school children.

Thompson, Friedlander, and Oskamp (1967) developed a scale to measure children's cultural attitudes which included a combination of verbal and nonverbal items. Children were read 12 short stories. Each story portrayed a protagonist along an evaluative dimension in a social situation. At the end of the story, each child was asked to choose between two drawings of the protagonist. These drawings differed only in skin color.

Ziller, Hagey, Smith, and Lang (1969) developed a scale which included self-social symbol tasks. These tasks were illustrated with gummed cutout figures. This scale's function was to study children's racial attitudes as well as self-perceptions. Koslin (1970) measured children's interracial attitudes with an instrument which included photographs of segregated and integrated classroom scenes. Koslin's scale also incorporated movable cutout figures with a simple social setting as a background. Jackson and Klinger (1971) developed an instrument, known as the Cross-Cultural Attitude Inventory, to assess elementary school pupils' attitudes toward Mexican-American and Anglo-American pupils. The instrument consists of several drawings of popular symbols representing Mexican and United States cultures. Children are asked to respond by marking one of five faces on a sad-happy dimension.

Zirkel and Greene (1976) developed the Cultural Attitude Scale (CAS). The CAS is "an initial approach in the measurement of cultural attitudes and knowledge with respect to the Puerto Rican, Anglo-American, and Black-American cultures" (p. 3). Children who are administered the cultural attitude scale do not require reading ability.

Instead, children have response options to pictorial stimuli. The pictures include graphic illustrations of symbols of the Puerto Rican, Anglo-American, and Black-American cultures, such as dress, sports, food, religion and important festivities. Children are asked to mark one of five faces on a happy-sad Likert scale. A unique feature of this scale is a separate response option which enables the child to indicate that she or he has no knowledge of the particular referent of the item (p. 3).

Instruments to Measure Multicultural Attitudes among High School and College Students

Bogardus (1925) developed one of the first instruments, the Social Distance Scale, to measure cultural attitudes among high school and college students. It includes seven kinds of social contacts. Subjects are asked to give, in every instance, their first "feeling reactions" (Shaw & Wright, 1967, p. 409). The items in the scale have been arranged in descending order of intimacy. The Social Distance Scale aims to measure the degree of intimacy an individual would allow to members of groups different from her or his own. It was developed by having 100 judges consisting of college faculty members and students rate each of 60 statements according to the extent of social distance the statements reflected (Shaw & Wright, p. 408). Shaw and Wright maintained that the social distance scale seemed "quite valid and reliable for measuring attitudes of subjects toward outgroups, but it should not be used to measure their attitudes toward their own reference or membership groups" (p. 408).

After the first appearance of the Social Distance Scale, in 1925, numerous scales (Eysenck & Crown, 1949; Ford, 1941; Grice, 1934; Harlan, 1942; Hinckley, 1932; Kogan & Downey, 1956; Levinson & Sanford, 1944; Likert, 1932; Rosander, 1937; Smith, M. 1946; Steckler, 1957; Thurstone, 1931) were constructed to measure attitudes towards blacks, Jews and other ethnic groups. Relevant to the present study, Levinson (1949) developed the Ethnocentrism Scale. This scale was used by Adorno, Frenkel-Brunswick, Levinson, and Sanford (1950) to study ethnocentrism and authoritarianism. The Ethnocentrism Scale uses a Likert-type rating and consists of 20-items subdivided into three subscales which measure attitudes toward Jews, blacks, other minorities and patriotism. Prentice (1956) developed an instrument to measure attitudes toward Jews and blacks. This scale, the Intolerant-Tolerant Scale (IT), contains 32 items. Sixteen of these items are positive--they state a tolerant or supportive position of the ethnic group. The other 16 items are negative--they state an intolerant position.

Osgood, Suci, and Tannenbaum (1967) developed a technique for measuring cultural attitudes known as the Semantic Differential. It consists of pairs of bipolar adjectives (e.g., good-bad, fast-slow, strong-weak) which demarcate a seven point scale. The test re-test coefficients of reliability ranged from .87 to .93 with a mean \bar{R} of .91 (Osgood, et al. p. 192). Regarding the validity of Semantic Differential, the authors said that "the semantic differential displays reasonable face-validity as a measure of attitude" (p. 193).

Sedlacek, Brooks, and Chaples (1971) developed the Situational Attitude Scale which incorporates elements of both Bogardus' Social Distance Scale and Osgood's Semantic Differential methodology. In the Situational Attitude Scale, subjects are asked to respond to statements by selecting among polar adjectives (e.g., afraid-unafraid, happy-sad).

Seelye (1969) developed an objective measure of biculturation, an individual's accommodation to two different cultures. This scale had a multiple-choice answer format. The cultural situations reflected in the multiple-choice bicultural instrument included foods, clothing, recreation, and religious practices of the cultures represented in the instrument. Seelye's scale was originally administered to Americans living in Guatemala.

Schmeidler and Windholz (1972) used a nonverbal indicator of attitudes as an instrument to assess cultural attitudes among college students. Schmeidler and Windholz's study compared cultural attitudes between university students from Thailand and the United States. Students were asked to draw a line of any shape to express the meaning of each word in a list. Each drawing was scored for such variables, among others, as direction, complexity, and size.

Wilson, Featherson, and Gillespie (1972) developed the Cultural Literacy Inventory designed to measure the perceptions of participants in the Cultural Literacy Laboratory in the University of Arizona, during the school year 1973-74. The Cultural Literacy Inventory measured participants' perceptions of their own culture and the selected

target culture. The items in the inventory were based on Hall's (1959) primary message system (pp. 45-46).

The Worldmindedness Scale

The Worldmindedness Scale (WS) designed by Sampson and Smith (1957) is a measure of "nationalistic-internationalistic" (Shaw & Wright, 1967, p. 203) attitudes. It is a 32-item, Likert-type scale which contains 16 pro-worldminded and 16 anti-worldminded items. Eight dimensions of the world (religion, immigration, government, economics, patriotism, race, education, and war) are represented by four items each. The subjects who participated in the construction of this instrument were 120 university students. WS has a corrected split-half reliability of .93.

In the past, the Worldmindedness Scale has been used in several studies. Smith (1955) used the WS to measure if certain types of intercultural experiences have a special impact on attitudes. The subjects who participated in Smith's study were secondary and college students. The experimental subjects, a total of 310, were divided into four groups. These four groups were selected to undergo different types of experience while traveling through Europe. One group, consisting of 136 persons went to Europe with the Experiment in International Living, an educational organization which routinely sends American students abroad. The other three groups included 26 persons who went to Europe with the Quaker International Voluntary Service (QIVS), 40 persons who traveled with the United States National Student Association, and 44 persons who went to Europe either by themselves, with families or friends, or as members of a tourist group.

This study had three control groups. One was a "stay-at-home" group of 25 Columbia University students who spent the summer in the United States. A second control group consisted of all the students in the Quaker International Voluntary Service group who had gone to Europe for the summer but who were not administered the pretest. The third control group consisted of 25 student tourists who had been to Europe previously but who had not received the pretest (p. 469). Specifically, Smith wanted to investigate if an unstructured, heterogeneous intercultural experience had a significant impact on general social attitudes, at least as measured over a relatively brief time span (p. 477).

Pre and posttesting instruments used in this study were the Worldmindedness Scale and a questionnaire assembled by Smith. This questionnaire "consisted of 11 items from the Ethnocentrism Scale, 11 items from the Fascism Scale, and 10 items from the Political Economic Conservatism Scale, all part of the California Opinion Public Scale, and 8 items from the Democracy Scale" (p. 470). All subjects in four experimental groups were pretested by mail in May 1950. The posttest questionnaire was mailed in the fall of 1950 to those subjects in the experimental groups and the stay-at-home control group who had returned the pretest and to subjects in the two posttest-only groups (p. 470). Smith's findings revealed that the type of unstructured, heterogeneous intercultural experience, did not have a significant impact on general social attitudes (p. 477).

Allman (1961) used the Worldmindedness Scale to compare differences in the student bodies of two schools. Eighty college seniors

participated in Allman's study (p. 33). The purpose of his study was to "determine if the college students chosen for study [had] social attitudes which [were] defined as worldminded," and "to observe if there [were] differences in the responses of students because of variances which might exist in terms of race" (p. 33). Allman found that the population of college students, attending the two schools selected, had social attitudes which were characterized as worldminded (p. 50). However, he noted that a larger percent of the students in one school (School X) reacted or "agreed more favorably to the pro-worldminded items than the students in School Y" (p. 50).

Garrison (1961) used the Worldmindedness Scale to compare differences based on religion, region of the country lived in, family background, sex, and year in college. His sample consisted of "233 students from public and private secondary schools and colleges in the Northeastern United States" (p. 148). Some of Garrison's specific conclusions were that: (a) there was a "low but positive relationship between the scores of college students on the eight categories making up the worldminded attitude test" (p. 152); and, (b) there was a "progressive increase in the worldmindedness attitude score from the freshman to the senior year in college, with the scores for girls slightly higher than those for the boys" (p. 152).

Newman and Ware (1976) used the WS as one of the instruments to determine the relationship between aesthetic perception and worldmindedness. Newman and Ware had a sample of "approximately 100 college freshmen and sophomores enrolled at the University of Florida in the

course 'Basic Institutions' during the 1974 winter quarter" (p. 46). Results showed a low positive relationship ($r = .35$) between world-mindedness and aesthetic perception (p. 46).

Erb (1977) used the Worldmindedness Scale in a construct validation of an instrument to measure teacher attitude toward the use of international content in the K-12 social studies curriculum. The sample for Erb's study consisted of college students and teachers. Based on the pilot sample, Erb observed an alpha of .85 for the total Worldmindedness Scale (p. 49).

Simulation as Teaching Strategy

Though simulation, as teaching strategy, did not originate within the field of education, simulation has been used "increasingly in education over the last thirty years" (Weil & Joyce, 1978, p. 186). Guetzkow (1959) defined simulation as "an operating representation of central features of reality" (p. 183). Furthermore, he added that "simulations may take the form of war games, of pilot chemical plants, of ship-and-harbor scale models, of computer-inventory systems" (p. 183). These types of simulation have been used extensively in the field of business, industry, and "some very elaborate applications of simulation have been made in military training" (Weil & Joyce, p. 189). Tansey (1971) maintained that the first simulations used in the field of education related to the subject of international relations (p. 7). These simulations modelled international organizations as the League of Nations and the United Nation Security Council (p. 7).

The rationale for the use of simulation in the field of education may be based on two premises as stated by Weil and Joyce (1978): (1) in a simulated situation, the learning tasks can be made less complex than they are in the real world, which will allow the students the opportunity to master tasks that would be extremely difficult "when all the factors of real-world operations impinge upon them" (p. 188); and, (2) simulations permit the students to learn "from self-generated feedback that they experience themselves" (p. 189). That is, students can learn the necessary corrective behaviors through their own senses rather than simply through verbal descriptions (p. 189).

In order to provide evidence of the educational value of simulations, Boocock (1966) conducted a research project at Berkeley, California, in the fall of 1964. Two simulations were selected for evaluation: the career game and the legislative game. Delegates to a conference of the National 4-H Clubs (about 1,200 young adults, ranging from 13 to 20 years of age) were randomly assigned to one of the two simulations (p. 8). Each delegate only participated in one simulation. The research design was pre-, posttest. All participants filled out identical questionnaires before and after the simulations, "with some additional questions afterwards pertaining to the particular game they had just played" (p. 9). The questionnaires contained 45 individual items about the career game and 74 items about the legislative game. In addition to the questionnaires, a series of multi-variate analyses, holding constant simultaneously respondents' sex, reported grades in school, age, and father's education, as well

as the game they played, were carried out to examine differences between experimental and control groups when other factors were controlled and to examine the effect of the game relative to these other variables (p. 9). Results indicated that "in addition to the obvious motivational effects of games which were reported by virtually all observers, simulation games seem capable of producing a variety of learning effects" (p. 9). Boocock classified these learning effects into three categories: (1) simulation games as vicarious experience, (2) simulation games and intellectual learning, and (3) simulation games and feelings of efficacy.

Sprague and Shirts (1966) researched the use of simulation not only as a motivational device, but also as a training device. Their research study was designed to test the feasibility of simulation as a teaching technique. The project involved 40 simulation runs in 17 schools, and included 30 teachers and 2,500 students. There was a statistically significant percentage of these students who reacted favorably to simulation as a technique. Of the junior high school students, 93 percent rated simulations favorably. Although the senior high school percentage was lower (75 percent), it was still a three-to-one favorite of students. The response of the teachers was also one of high enthusiasm (pp. 6-7).

Simulation in the Training of Preservice Teachers

The review of literature showed several studies on simulation as a teaching strategy in the training of preservice teachers. Specifically, Kersh (1962) used media dominated simulation in the preservice training of teachers. That is, Kersh used multiple projection

techniques through which a number of incidents in a sixth grade classroom were shown on three 16 mm projectors. The classroom incidents portrayed a hypothetical class of 22 children. This hypothetical class was set up with a cumulative record file for each child. There were also written descriptions of the fictitious school and of the community. All of the problems that formed the basis of the simulation were on film. There were 60 problems divided into three sets of 20. Each student teacher was scheduled for two hours a week in the simulation laboratory, and took about four weeks to run through a sequence of 20 problems. This included introduction, pre, and posttesting, but not time spent in reading background material (p. 109). In 1963, Kersh reported on two research experiments he carried out using this simulation laboratory. In the first study, he investigated the image size and the feedback mode. Treatment consisted of exposing student teachers to projections small in size and to projections large in size. Kersh concluded that the groups trained with the less realistic, small projections did slightly better on posttests than did those using the more realistic, large projections. In the second study, Kersh investigated the mode of response of the student teachers, where enacted responses were compared with verbalized responses. It was found that there was no statistically significant difference in posttest performance of student teachers who acted out their responses from those who merely described what they would do.

Twelker (1966) through the use of simulation investigated the effect of prompting as an instructional variable. His prompts

were of two kinds: general information, which enabled the student teacher to identify the kind of problem, and standard prompts, which guided the trainee's subsequent responses. Results indicated that the former type of prompt had no measurable effects in either learning or transfer. Twelker concluded that realism and prompting were not important variables when compared with instructor differences and length of training.

Cruickshank and Broadbent (1968) extended the use of simulation as a training technique to problems that occurred beyond the classroom. As a preliminary procedure, Cruickshank and Broadbent set out to identify the actual problems of beginning teachers. A sample of 163 first-year teachers was used; 31 problems sufficiently common to all were selected. A fictitious fifth grade class was then simulated and extensive background information was compiled. This consisted of such informative detail as the curriculum handbook, audiovisual catalogue, sociograms for the fictitious class of 31 children, faculty handbook, and reading progress reports. Two film strips and a long playing record were designed to introduce the beginning teachers to the community and the school. The problems and reading references were introduced by booklets. Beginning teachers had an opportunity to learn about the fifth grade classroom's problems through colored 16 mm film, role play cards, and written situations. Cruickshank and Broadbent (1969) discussed their research and stated their preliminary hypotheses thus:

If student teachers are given pre-student teaching opportunities to encounter, analyze, and attempt to solve critical teaching problems;

- c₁) then, such problems will be less numerous;
- c₂) then, general student teaching performance will be improved;
- c₃) then, they will develop more positive feelings toward concepts related to such problems;
- c₄) then, they will be more confident;
- c₅) then, they will be able to assume full-time responsibility for student teaching sooner. (p. 51)

Cruickshank and Broadbent (1969) found that "of the five consequences tested, only the first--problems will be less numerous--received any statistically significant results" (p. 51). However, the researchers were of the opinion that the student teachers found the simulation experience valuable and realistic. Cruickshank (1971) believed that the failure to achieve statistical significance in the results might be due to the lack of power of the simulation, to the selection of consequential hypotheses, or to the fact that students were solving the problems of beginning teachers when they ought to have been dealing with the problems of students.

Marten, Denfee, and Buffie (1970) conducted research on a five-year period simulation program developed for student teachers at Indiana University. Through this simulation program the student teacher was introduced to the major problems facing teaching. The program also required that the student teacher participate in activities outside the classroom situation. This research project recognized the separate problems of elementary and secondary education and focused attention on each of them separately. The Indiana project

began in the 1964-1965 academic year. During the exploratory stage, the University Council for Educational Administration materials (Hemphill, Griffiths, & Frederiksen, 1962) were studied in detail. The simulation phase in the first section of the project consisted of an introductory lecture and analysis of the simulated community followed by nine sessions each one of which was concerned with one aspect of the simulated community. The simulated classroom situations included problems related to instructional activities, discipline, role set relationships, and policy decisions. There were no efforts made to measure the simulation objectively. In the second section of the project, the semester's length was 16 weeks. At the end of the semester, the student teacher participated in a simulation sequence in which he or she played the role of a beginning teacher. These simulation sequences asked student teachers to make decisions which covered a wide range of teacher activities.

Vlcek (1966) reported on a project completed at Michigan State University in September 1965, which was designed after the Kersh model. The purpose of this research project was to measure the effect of simulation in enabling students to identify and solve the problems of teachers while they were still student teachers. It also attempted to measure the transfer of this acquired knowledge, to see if the student teachers' self-confidence was improved, and to determine student attitudes toward the simulation experience. Student teachers were divided into two groups, experimental and control. The experimental group was given seven hours of individual training in the simulator followed by two hours of orienting and testing. The control

group did not participate in simulation, only experienced the orientation sequence and posttesting. The posttest for each group was based on another set of simulation materials and was divided into three sections: recognition of the problem, response to it, and the application of principles to solve it. Significant performance differences were found between the groups and simulation was shown to be an effective device under laboratory conditions. To measure increase in self-confidence of the student teachers, after simulation training, a nine-question, four-point, Likert-type confidence scale was used before and after the simulation experience. Results revealed an increase of the student teachers' confidence in their ability to teach. To measure their own evaluation of the simulation, the experimental group was given a questionnaire to answer both after the simulation and again during their teaching practice. Results showed that students perceived the simulation as both worthwhile and profitable.

Twelker (1971) reported on a Michigan State University simulation system for the preservice training of teachers. The simulation was designed to enable student teachers to use cues available in the teaching situation in making decisions and acting on them. A sound film was used to present the situation initially, to suggest alternative plans of possible action and, in appropriate circumstances, to supply positive feedback. Where the student teacher's response to the situation was held to be incorrect, aural feedback and coaching made him or her aware of the situation. After the coaching, some of the original film was played back, and if the student teacher gave a

satisfactory response, the positive, filmed feedback showed him or her the desirable consequences.

Gaffga (1967) conducted research in which he tested simulation as a prognostic device. Specifically, Gaffga wanted to know whether the students' responses during simulation corresponded with, or had any similarity to, their responses during teaching practice; whether simulation changed student behavior; and finally whether simulation could be a better predictor of student teaching practices than the ratings conventionally supplied by college teachers. Gaffga used experimental and control groups whose subjects were randomly selected. He concluded that simulation situations could be used as predictors of student behavior, that they were useful means of producing desirable changes in student teacher behavior, and that the ratings given to student teachers by observers during simulation were closer to the ratings they received on student teaching practice than were predictions of their subject success made by college professors.

Simulation in the Field of Multicultural Education

The review of the literature showed few studies, some of them mentioned earlier, related to the use of simulation in the field of multicultural education or international relations. Nonetheless, Guetzkow (1959) studied the possibilities for research of an international simulation in the laboratory of the Program of Graduate Training and Research in International Relations at Northwestern University in 1957-58. There were three runs of the international simulation lasting from three to four hours. During the simulation,

five "nations" were operated simultaneously (p. 185). Each nation was manned by one, two, or three decision-makers. Those in charge of decision-making "made the nation's final decisions with regard to overall policies of the nation as they related to both external and internal considerations" (p. 185). Although the participants, in the simulation, were physically proximate, only written communications were permitted, to allow the researchers to obtain a complete record of the transactions. Also the nations were shielded from each other by screens. The simulation's format followed that of a conference. Conferences were conducted at round tables, with several methods of recording. The decision-makers passed a sheet of paper back and forth, with every participant reading the last reply before the next response was begun. This method was followed during the small conferences. In larger conferences, a blackboard in view of all was used for the interchanges (p. 187). Although Guetzkow (1959) did not measure objectively the intern-nation simulation researched in the Graduate Training and Research Center for International Relations at Northwestern University; earlier he stated that an intern-nation simulation may prove useful for training purposes in a number of situations. For instance, a simulation of this type may complement texts and lectures in the teaching of international relations to undergraduate and graduate students (Guetzkow, 1958, pp. 76-79).

Venditti (1969) of the University of Tennessee developed simulations that illustrated the problems that arise in desegregated schools. Specifically, Venditti wrote a handbook for teaching in Valleybrook Elementary School, a desegregated school. This handbook

included a simulation game which focused upon problems of the racially desegregated. In 1970 Venditti produced a simulation game for elementary and high school teachers. The emphasis of the simulation was to present teachers with a situation in which they had to solve multi-ethnic problems.

Schnapper (1979) described a training program which included an experiential simulation technique used by the Canadian International Development Agency (CIDA) to provide training for its international operations personnel. The simulation was "intended to give interculturally naive participants an intercultural experience that would make them more aware of their own 'Canadianness' and an opportunity to gain new perceptions and practice new behaviors" (p. 28). This simulation was administered to 140 participants who were divided into smaller groups of 12 to 15 each. After a brief orientation by a staff composed of former international volunteers (Canadian University Service Overseas, British Graduate Volunteer Service Overseas, United States Peace Corps), each group was asked to simulate a situation in which it had crash-landed in one of four environments--desert, mountain, swamp, or island. The members of the group then had to evolve a way of coping with the environment and each other. The simulation was carried on during a four day interval. Schnapper stated that the "training program ensured that the participants would experience concretely . . . more abstract but necessary concepts, which would help them appreciate other cultures and to work more effectively overseas" (p. 28). At the end of the experiential simulation, participants were regrouped according to the area or country they were going to.

They were presented with a list of persons, films, books, and slides which they could pursue on their own. Schnapper noted that after the simulation, participants were "eager to acquire the information that related both to their recent experience and to their anticipated experience overseas" (p. 29). The effectiveness of this simulation was not measured objectively, however, the staff stated that the questions asked by the participants, during debriefing, were far superior to those of previous groups who had not participated in the simulation and who had undergone more traditional programs (pp. 29-30). Also, it was observed that the "interest of the participants shifted noticeably from purely technical and logistical matters to concerns about intercultural and interpersonal adjustment problems" (p. 30).

Summary

In the past, too many teachers have rejected lower-class children whose styles, values and behaviors have been different from the middle-class group to which the teachers belong (Taba, 1953). The importance of providing teachers with a training in cultural analysis (Landes, 1965) is not to be denied, especially when the teacher plays the role of a mediator of culture (Grant, 1977). Taylor's (1967) recommendations of helping college graduates and future teachers develop multicultural perspectives have been followed in the propagation of numerous programs and teaching strategies to increase multicultural awareness across the United States. Such programs have advocated an assorted array of teaching strategies including the use of action pictures (Kentworthy, 1970); nonverbal

communication strategies (Nine Curt, 1976); interviewing immigrants, role playing, eating of an ethnic meal (Susskind, 1978); first hand experiences with young people of multicultural backgrounds (Mohr, 1973); simulations (Dekock, 1969; Guetzkow, 1959; Noesjirwan & Freestone, 1979; Schnapper, 1979; Venditti, 1969); college-level ethnic studies courses (Susskind, 1978); teacher-to-teacher trainee help (Bronaugh, 1977); internship programs with teacher trainees as decision-makers (Ferrin, et al. 1975; Taylor, 1975); establishment of cultural literacy laboratories (Gayles, 1975; Paulsen & Wilson, 1974), and establishment of research centers (Kentworthy, 1970).

The importance of measuring cultural attitude change among college students is reflected in the existence of several instruments designed for this purpose. Examples of some of these instruments are The Bogardus Social Distance Scale (1925); The Ethnocentrism Scale (Levinston, 1949); The Intolerant-Tolerant Scale (Prentice, 1956); The Worldmindedness Scale (Sampson & Smith, 1957); and, the Cultural Literacy Inventory (Wilson, et al. 1972).

Simulation has been described as a powerful method of training which can contribute significantly to teacher preparation (Cruickshank, 1971). Through simulation the learning tasks can be made less complex than they are in the real world (Weil & Joyce, 1978), which will allow teacher trainees the opportunity to master tasks that would be extremely difficult otherwise. The review of the literature has shown that simulation may be effective in some instances (Cruickshank & Broadbent, 1968; Dekock, 1969; Gaffga, 1967; Noesjirwan & Freestone, 1979; Vlcek, 1966). Bafá Bafá is one type of

simulation which has been used in the training of U. S. Navy personnel (Weil & Joyce, 1978). It has also been used during teachers' in-service workshops in the late '70s. Based on this review of the literature, the researcher decided to investigate the effectiveness of the cross-culture simulation Bafá Bafá in the development of teacher trainees' worldmindedness.

CHAPTER III

PROCEDURES

The problem in this study was to determine if the world views of teacher trainees were affected after they participated in the cross culture simulation Bafá Bafá. The null hypothesis to be tested stated: there will be no significant differences ($p < .05$) in subscale scores for the Worldmindedness Scale as a function of treatment and comparison group assignment. The procedures followed to test the hypothesis included: (1) sample selection and assignment, (2) treatment of the groups, (3) instrumentation, (4) data collection, and (5) data treatment.

Sample Selection and Assignment

The sample population consisted of 74 teacher trainees enrolled in the Professional Studies in Elementary Education course at the University of Florida in the Spring quarter of 1980. Subjects' age ranged from early 20s to late 30s. The sample composition was approximately 98% female and 2% male. The selection of the sample was based on University of Florida's course section assignment.

Subjects enrolled in the Professional Studies in Elementary Education course, in the General Education Program, were organized into several sections or seminars. The students were spending ten hours a week in teaching training in elementary schools in Alachua

County, Florida, as well as participating in the seminars. Teacher trainees who participated in the study were enrolled in four of these seminars. Two seminars were assigned to treatment and the remaining two served as comparison groups. Assignment of seminars to treatment and comparison groups was at random.

Treatment of the Groups

Treatment of the groups consisted of the cross culture simulation Bafá Bafá written by Shirts (1977). This cross culture simulation, as mentioned earlier, was designed for the Personnel Research and Development Center, U. S. Navy to help prepare Navy personnel for living in a culture different from United States culture. There were two cultures presented in the simulation: Alpha and Beta cultures. These cultures were "designed to catch the essence of the differences between cultures without replicating a culture" (Shirts, p. 21).

The cross culture simulation Bafá Bafá took place in the Media Center at the University of Florida in April, 1980. The researcher acted as the director of the Alpha culture; and a colleague acted as assistant director in charge of the Beta culture. The length of the simulation was approximately 50 minutes with a half-hour for discussion or debriefing. The seminars participating in the simulation were labelled Group I and Group III. Group I, composed of 23 teacher trainees and the seminar teacher, participated in the cross culture simulation during an afternoon session on April 21, 1980. The 19 teacher trainees and the seminar teacher in Group III participated in the cross culture simulation on April 28, 1980.

The purposes of the cross culture simulation Bafá Bafá were:

(1) to create a situation which would allow participants to explore the idea of culture; (2) to create feelings which would be similar to those an individual would likely encounter when he or she would travel to a different culture; and (3) to give participants experience in observing and interacting with a different culture (Shirts, p. 8).

The procedures followed in the simulation are outlined below (Shirts, 1977, pp. 7-10, 25-28):

1. Participants were briefed on the general purposes of the simulation (see Appendix A).
2. Participants were divided into two groups or "cultures": the Alpha culture and the Beta culture.
3. Members of each culture chose observers and visitors.
4. Alphas met in one room; Betas met in another room.
5. Participants were introduced to the values, expectations, and customs of their new culture. Teacher trainees were told that Alphans were relaxed and valued personal contact and intimacy within a sexist and patriarchal structure. Betans, on the other hand, measured a person's value by how he or she performed in the market place.
6. Each group proceeded to practice its culture. Once all of the members of both cultures understood and felt comfortable with their new culture, observers were exchanged.
7. Observers visited the culture different from their own. They attempted to learn as much as possible about the values, norms, and customs of the other culture without directly asking

questions of members of the host culture. Observers were not allowed to speak; they were only permitted to observe. Host cultures went on as though no one was present.

8. After a fixed time, observers returned to their respective groups and reported on what they saw. Everyone tried to guess what the rules were that governed the other culture's behavior (see Appendix B). That is, each group tried to develop hypotheses about the most effective way to interact with the other culture, based on the information provided by the observer.
9. After the hypotheses generated discussion, the director of the cross culture simulation sent the first group of visitors to the other culture and participants were given artifacts (e.g., playing cards, chips, and lapel buttons) of the foreign culture. Participants were not able to ask any of the specific rules which governed the foreign country.
10. Visitors returned to their own culture and reported what the foreign culture was like, how it was to live in such a culture, what the language was like, etc.
11. Director of simulation sent second set of visitors to other culture. After everybody had had a chance to visit the Alpha and Beta cultures, the simulation was ended.
12. Entire group returned to one of the classrooms at the end of the simulation. Betas sat together on one side of the room, and Alphas sat together on the other side of the room.

13. Debriefing followed immediately after the simulation. During the debriefing, teacher trainee participants in the simulation were asked the following questions (Shirts, pp. 19-20):

- a) To Beta members: Could you list some words which describe the Alphans?
- b) To Alpha members: Could you give some words which describe the Betans?
- c) To Betans: How did the Alphans appear to you when they visited you?
- d) To Alphans: How did Betans appear to you when they visited you?
- e) To Betans: Could you describe your feelings and thoughts when you visited the Alpha culture?
- f) To Alphans: Could you describe your feelings and thoughts when you visited the Beta culture?
- g) To Alphans: Will anyone describe the Beta culture?
- h) To Betans: Will anyone describe the Alpha culture?
- i) To Betans: Could anyone explain the Beta culture?
- j) To Alphans: Could anyone explain the Alpha culture?
- k) To both Alphans and Betans: Which culture would you prefer to live in and why?

Materials Used in the Cross Culture Simulation

The materials used in Bafá Bafá cross culture simulation were those materials included in the simulation kit developed by Shirts (1977). The following materials were given to participants:

Regarding the Alpha culture:

- 1) Each Alpha member received a set of three cards which included a Blimmer, a Tibber and a Stipper card. Each Beta member was given the same set of cards when he or she visited the Alpha culture. This set of cards was retrieved from the Beta member upon her or his departure.
- 2) Each Alpha member received an Alpha card. It became a permanent record of a person's acceptability in the Alpha culture.
- 3) Aside from the set of cards, which included the Blimmer, the Tibber, the Stipper, and the Alpha card, each member received five chips.
- 4) Each Alpha member who visited the Beta culture received a visitor badge.
- 5) A cassette, with narration describing the rules of the Alpha culture, which was played for Alpha members to learn the rules of the Alpha culture.

Regarding the Beta culture:

- 1) Each Beta member received a set of six Beta trading cards. Each Alpha member received a set of Beta trading cards when he or she visited the Beta culture. This set of cards was retrieved from the Alpha member upon his or her departure.
- 2) Each Beta member who visited the Alpha culture received a visitor's badge.
- 3) A cassette, with narration describing the rules of Beta culture, which was played for Beta members to learn the rules of the Beta culture.

Instrumentation

The dependent variable in this study was world view as measured by the Worldmindedness Scale (WS). The Worldmindedness Scale is a "Likert-type scale designed by Sampson to emphasize value judgments related to the concept of world-mindedness" (Smith, 1955, p. 470). It contains 32 items (see Appendix C) that pertain to eight dimensions of the world-minded frame of reference. The Worldmindedness Scale dimensions are religion, immigration, government, economics, patriotism, race, education, and war. For the purpose of this study, the dimensions were labelled consecutively as subscale one (S_1), subscale two (S_2), etc. Table 1 shows the subscale structure of the Worldmindedness Scale.

Table 1
Subscale Structure of the Worldmindedness Scale

Subscales	Abbreviation	Item Numbers
Religion	S_1	1, 9, 17, 25
Immigration	S_2	2, 10, 18, 26
Government	S_3	3, 11, 19, 27
Economics	S_4	4, 12, 20, 28
Patriotism	S_5	5, 13, 21, 29
Race	S_6	6, 14, 22, 30
Education	S_7	7, 15, 23, 31
War	S_8	8, 16, 24, 32

Sampson and Smith (1957) reported the Worldmindedness Scale had a corrected split-half reliability of .93 and a test-retest reliability also equal to .93 (p. 105). In responding to the Worldmindedness Scale items, teacher trainees were asked to circle one of the following six degrees of agreement and disagreement: strongly agree (SA), agree (A), mildly agree (MA), mildly disagree (MD), disagree (D), and strongly disagree (SD). The possible range of scores on the Worldmindedness Scale was from 0, for extreme national-mindedness, to 192 for extreme worldmindedness, with 96 as the theoretical neutral point (Sampson & Smith, p. 102). In order to score the WS instrument, the procedures indicated in Shaw and Wright (1967, pp. 203-204) were followed. WS total scores were generated for each teacher trainee by adding the value of the item responses which ranged from 6 for strong agreement to 0 for strong disagreement.

Data Collection

Data were collected using the "Solomon 4 Group Design" (Campbell & Stanley, 1963, p. 24). In this study, however, the Solomon design was treated as a quasi-experimental design. The reason being the impossibility to randomize subjects' selection and the difficulty in obtaining the same level of equivalence among the members in the four groups participating in the study. The quasi-experimental design for the study was:

Group 1 O_1 X O_2

Group 2 O_3 O_4

Group 3 X O_5 X Treatment

Group 4 O_6 O Observation

Four of the teachers in charge of the Professional Studies in Elementary Education Course at the University of Florida, administered the Worldmindedness Scale to the teacher trainees who participated in the study in the Spring quarter of 1980. The first set of observations, pretests (O_1) was collected on April 7, 1980. The last set of observations, posttests (O_4) was collected on May 22, 1980. Out of 1,888 data points (posttests: O_2 ; O_4 ; O_5 ; O_6), only 13 points were missing.

Data Treatment

The data from posttest scores were analyzed using the Statistical Analysis System (SAS), General Linear Model (GLM) procedure for unbalanced data (Statistical Analysis System, 1979, p. 245). The GLM executed a 2×2 analysis of variance to test the null hypothesis for main effects and interactions as a function of treatment and comparison group assignment. The scores from each subscale of the Worldmindedness Scale (religion, immigration, government, economics, patriotism, race, education, and war) were considered as separate dependent measures and were analyzed independently. That is, an F ratio was obtained for each subscale.

The data collected from pretests and posttests for Group I
(O_1 X O_2) were analyzed using a t-test for non-independent samples.

CHAPTER IV

RESULTS AND DISCUSSION OF FINDINGS OF STUDY

The purpose of this investigation was to determine if the world views of teacher trainees were affected, after they participated in the cross culture simulation Bafá Bafá. The Solomon 4 Group, pretest posttest research design was followed. Two treatment groups participated in the cross culture simulation, while two comparison groups only received pretests and posttests. The Worldmindedness Scale served as the measuring instrument.

It was hypothesized that there would be no significant difference ($p < .05$) in teacher trainees' world-view scores as measured by pretests and posttests scores for the Worldmindedness Scale as a function of treatment and comparison group assignment.

The null hypothesis was tested for significant main effects and interactions using the Statistical Analysis System (SAS), General Linear Model (GLM) procedure for unbalanced data (Statistical Analysis System, 1979, p. 245).

Analysis of Variance

An analysis of variance was followed to test the null hypothesis for main effects and interactions. The 2 x 2 analysis of variance design, as executed by SAS/GLM was the following (Campbell & Stanley, 1963, p. 25):

	NO	X	X
Pretested		0 ₄	0 ₂
Unpretested		0 ₆	0 ₅

The results of the analysis of variance, using the posttests world view scores for the Worldmindedness Scale, indicated no significant differences. Table 2 shows the means and standard error of means for each item of the Worldmindedness Scale. WS has 16 pro-worldmindedness items and 16 anti-worldmindedness items. On a scale of 0 to 6, 6 represents strong agreement (SA) for pro-worldmindedness items and strong disagreement (SD) for anti-worldmindedness items. Means, pointing to strong disagreement, were shown for anti-worldmindedness items. These were: item 6, with a 5.26 mean (Race prejudice may be a good thing for us because it keeps many undesirable foreigners from coming into this country); item 7, with a 5.08 mean (It would be a mistake for us to encourage certain racial groups to become well-educated because they might use their knowledge against us); item 9, with a 5.08 mean (Foreigners are particularly obnoxious because of their religious beliefs); and, item 22, with a 5.03 mean (Some races ought to be considered naturally less intelligent than ours).

Table 3 shows the means and standard error of means for the subscales of the Worldmindedness Scale. Each subscale has four items with 24 as its extreme theoretical pro-worldmindedness mean. Subscale 1 (Religion) showed a mean of 15.98, and Subscale 6 (Race) showed a mean of 14.93.

Table 2

Mean and Standard Error of Mean for Each Item of
the Worldmindedness Scale

Item	Mean	Std. Error of Mean
1. Our country should have the right to prohibit certain racial and religious groups from entering it to live.	3.27	0.29
2. Immigrants should not be permitted to come into our country if they compete with our own workers.	3.78	0.25
3. It would be a dangerous procedure if every person in the world had equal rights which were guaranteed by an international charter.	4.07	0.23
*4. All prices for exported food and manufactured goods should be set by an international trade committee.	2.83	0.25
*5. Our country is probably no better than many others.	1.41	0.23
6. Race prejudice may be a good thing for us because it keeps many undesirable foreigners from coming into this country.	5.26	0.11
7. It would be a mistake for us to encourage certain racial groups to become well-educated because they might use their knowledge against us.	5.08	0.16
8. We should be willing to fight for our country without questioning whether it is right or wrong.	4.02	0.24
9. Foreigners are particularly obnoxious because of their religious beliefs.	5.08	0.15
*10. Immigration should be controlled by an international organization rather than by each country on its own.	1.47	0.20

*Pro-Worldmindedness items

Table 2 (Continued)

	Item	Mean	Std. Error of Mean
*11.	We ought to have a world government to guarantee the welfare of all nations irrespective of the rights of any one.	1.78	0.22
12.	Our country should not cooperate in any international trade agreements which attempt to better world economic conditions at our expense.	3.83	0.21
*13.	It would be better to be a citizen of the world than of any particular country.	1.76	0.20
*14.	Our responsibility to people of other races ought to be as great as our responsibility to people of our own race.	3.90	0.25
*15.	An international committee on education should have full control over what is taught in all countries about history and politics.	1.10	0.16
16.	Our country should refuse to cooperate in a total disarmament program even if some other nations agreed to it.	3.56	0.22
17.	It would be dangerous for our country to make international agreements with countries whose religious beliefs are antagonistic to ours.	3.97	0.21
*18.	Any healthy individual, regardless of race or religion, should be allowed to live wherever he wants to in the world.	4.32	0.19
19.	Our country should not participate in any international organization which requires that we give up any of our national rights or freedom action.	1.40	0.18
*20.	If necessary, we should be willing to lower our standard of living to cooperate with other countries in getting an equal standard for every person in the world.	2.14	0.24
21.	We should strive for loyalty to our country before we can afford to consider world brotherhood.	2.03	0.22

Table 2 (Continued)

	Item	Mean	Std. Error of Mean
22.	Some races ought to be considered naturally less intelligent than ours.	5.03	0.17
*23.	Our schools should teach the history of the whole world rather than of our own country.	3.31	0.26
*24.	An international police force ought to be the only group in the world allowed to have armaments.	1.39	0.22
25.	It would be dangerous for us to guarantee by international agreement that every person in the world should have complete religious freedom.	3.66	0.24
*26.	Our country should permit the immigration of foreign peoples even if it lowers our standard of living.	2.64	0.25
*27.	All national governments ought to be abolished and replaced by one central world government.	1.10	0.18
28.	It would not be wise for us to agree that working conditions in all countries should be subject to international control.	2.26	0.25
29.	Patriotism should be a primary aim of education so our children will believe our country is the best in the world.	3.69	0.20
*30.	It would be a good idea if all the races were to intermarry until there was only one race in the world.	0.91	0.17
*31.	We should teach our children to uphold the welfare of all people everywhere even though it may be against the best interests of our own country.	2.64	0.23
*32.	War should never be justifiable even if it is the only way to protect our national rights and honor.	2.03	0.24

Table 3

Mean and Standard Error of Mean for Each
Subscale of the Worldmindedness Scale

Subscale		Mean	Std. Error of Mean
Religion	(S ₁)	15.98	0.55
Immigration	(S ₂)	12.08	0.58
Government	(S ₃)	8.18	0.47
Economics	(S ₄)	10.88	0.50
Patriotism	(S ₅)	8.86	0.54
Race	(S ₆)	14.93	0.45
Education	(S ₇)	12.05	0.50
War	(S ₈)	10.80	0.56

Table 4 contains the analysis of variance summary for the Worldmindedness subscales posttest scores. The obtained F ratios for the eight WS subscales were smaller than the needed F ratio of 2.78 with 3 and 55 degrees of freedom to reject the null hypothesis at ($p < .05$). Therefore, the null hypothesis was retained. Furthermore, the results shown in the least square means for both treatment and comparison groups were very similar (see Appendix D).

Post-Hoc Analysis

No differences were indicated for the null hypothesis using the 2 x 2 analysis of variance, posttests design only, under the SAS-GLM procedure. A post-hoc analysis was performed to determine

Table 4

Analysis of Variance Summary Table for Worldmindedness
Posttest Subscale Scores

SOURCE		df	MS	F
Religion	(S ₁)	3	9.561	0.53
Error		55	18.041	
Immigration	(S ₂)	3	7.230	0.35
Error		55	20.634	
Government	(S ₃)	3	3.500	0.25
Error		55	13.789	
Economics	(S ₄)	3	16.554	1.15
Error		55	14.372	
Patriotism	(S ₅)	3	17.926	1.02
Error		55	17.657	
Race	(S ₆)	3	8.262	0.68
Error		55	12.235	
Education	(S ₇)	3	0.968	0.06
Error		55	15.744	
War	(S ₈)	3	38.010	2.17
Error		55	17.518	

whether the cross culture simulation strategy had affected teacher trainees' world-view scores in Group 1 ($O_1 \times O_2$). That is, a t-test for non-independent samples was performed to test the difference between the pretests and posttests for Group 1 on each of the world view measures. The t-test for non-independent samples results indicated that the posttest scores were not significantly different from the

pretest scores for the Worldmindedness Scale ($t = 1.31$ $df = 14$ $p > .05$). Table 5 shows the before and after WS scores of Group 1 which included 15 teacher trainees. For some teacher trainees, the scores increased considerably; for others, the change was negligible; and for the rest, the change in scores was negative.

Table 5

Before and After WS Scores of 15 Teacher Trainees
Who Participated in Cross Culture Simulation

Subject Number	Pretest	Posttest	Difference (D)	D ²
1	85	83	- 2	+ 4
2	104	105	+ 1	+ 1
3	102	112	+10	+ 100
4	72	114	+42	+1764
5	111	111	0	0
6	127	132	+ 5	+ 25
7	101	97	- 4	+ 16
8	112	104	- 8	+ 64
9	81	66	-15	+ 225
10	97	102	+ 5	+ 25
11	106	109	+ 3	+ 9
12	95	84	-11	+ 121
13	76	90	+14	+ 196
14	78	115	+37	+1369
15	78	85	+ 7	+ 49
			$\Sigma D = 84$	$\Sigma D^2 = 3968$

Limitations

The results obtained in the study are limited in their generalizability. Since sample selection was not randomized, decisions about how randomized samples of teacher trainees may have responded cannot be made. Also, the results are limited to the setting and treatment used in the study.

Summary

The results of the 2 x 2 analysis of variance revealed no significant difference in world view scores between teacher trainees after they participated in a cross culture simulation. The null hypothesis was retained. The Post-Hoc analysis did not indicate that the posttest scores were significantly different from the pretest scores in Group 1.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this study was to determine if the world views of teacher trainees were affected after they participated in the cross culture simulation Bafá Bafá. Seventy-four teacher trainees enrolled in the Professional Studies in Elementary Education course at the University of Florida participated in the study in the Spring of 1980. A pretest, posttest research design was followed. Teacher trainees had been assigned to four seminar sections by the University of Florida. Two of these sections received treatment, that is, subjects participated in cross culture simulation. The other two sections only received pretests and posttests. Group assignment to treatment and comparison conditions was at random. The Worldmindedness Scale served as the measuring instrument.

Collected data were analyzed using a 2 x 2 analysis of variance, posttests only design, and a t-test for non-independent samples. Results obtained in this investigation did not indicate significant differences. Therefore, the null hypothesis which stated that there would be no significant difference ($p < .05$) in teacher trainees' world-view scores as measured by pretests and posttests on Worldmindedness Scale scores, as a function of treatment and comparison group assignment, was retained.

The cross culture simulation Bafá Bafá was welcomed enthusiastically by teacher trainees who participated in the study. Most of the teacher trainees indicated to the researcher that they would like to participate in more simulations. One teacher trainee said that her participation in the cross culture simulation had done more for her than an intercultural communication course which relied only on reading textbooks and in writing reports. However, in spite of some enthusiastic responses, no significant differences were found. Nonetheless, results obtained in this study do not necessarily lead to the conclusion that simulation is not effective in the field of multicultural education. The limitations faced, such as non-random sample, a small sample, mortality and reactive effects preclude generalizations. Also, a more extensive use of similar simulations could have produced significant results.

An item analysis showed that teacher trainee participants in the study generally gave a strong disagreement rating to items in the Worldmindedness Scale which stated characteristics of different racial and cultural groups in negative terms. On a scale from 0 (strongly agree) to 6 (strongly disagree) the mean scores on selected items were:

5.26, Item 6 (Race prejudice may be a good thing for us because
it keeps many undesirable foreigners from coming
into this country)

5.08, Item 7 (It would be a mistake for us to encourage certain
racial groups to become well-educated because they
might use their knowledge against us)

5.08, Item 9 (Foreigners are particularly obnoxious because of their religious beliefs)

5.03, Item 22 (Some races ought to be considered naturally less intelligent than ours)

An examination of the subscales of the WS (see Table 3) reveals that the two subscales which had means in the direction of worldmindedness, were: Religion and Race. Religion with a 15.98 mean (on a scale from 0 to 24 where 24 is an extreme pro-worldminded attitude) and Race with a 14.93 mean. The items included in subscale Race were: item 6 and item 22, mentioned previously; item 14, with a 3.90 mean (Our responsibility to people of other races ought to be as great as our responsibility to people of our own race) and item 30, with a 0.91 mean (It would be a good idea if all races were to intermarry until there was only one race in the world).

Although the results of this study preclude making generalizations, the relative low mean score on item 14, which relates to our responsibility to people of other races, indicates the need for colleges and universities to implement teacher education programs which will help teacher trainees move in the direction of greater global concern. However, the question remains: what are effective learning experiences to develop worldmindedness? This study dealt with the investigation of the effectiveness of a cross culture simulation in the development of teacher trainees' worldmindedness--one of the objectives of multicultural education. Though this study did

not yield significant differences, the possibility of using simulation as a teaching strategy in the field of multicultural education should not be abandoned. Other research has shown that simulation as a teaching strategy motivates students (Sprague & Shirts, 1966) and provides them with vicarious experiences (Boocock, 1966). Simulation exercises have been successfully used as a training tool in intercultural communication by the Canadian International Development Agency (CIDA) for its international operations personnel (Schnapper, 1979). Schnapper found that personnel who participated in simulation exercises for four days asked questions that "were far superior to those of previous groups, who had undergone more traditional programs" (pp. 29-30).

The present study showed that after some teacher trainees participated in cross culture simulation (see Table 5), there was a sizable increase in WS scores; there was less change in others' scores and a decrease in scores for some. This raises the possibility that in the field of multicultural education, simulation may be effective only for some students. Smith (1955) found that individuals who benefit most from multicultural experiences are those who were previously relatively ethnocentric and nationalistic (p. 474). Research needs to be conducted to determine if simulation is more beneficial for teacher trainees who are relatively ethnocentric and nationalistic. Studies also need to be conducted to see if there are other learner characteristics positively associated with simulation as a learning strategy.

In order to satisfy the present demands of multicultural education teacher trainers and curriculum designers will need to co-operatively design teacher education programs which will include several teaching strategies structured systematically into the program. As Gollnick (1977) pointed out, multicultural teacher education is a challenge for the curriculum designer; particularly in the 1980s, when there is an urgent need for training programs that enable teacher trainees to identify cultural differences and learn behaviors acceptable and appropriate in different cultural settings. Perhaps training programs which include a systematic and interdisciplinary approach which examine alternative ways of life, world ideologies, religions and economic systems particular to different cultures will be effective in helping teacher trainees develop the competency needed in multicultural education.

Teacher trainers and curriculum designers need to evaluate all of the teaching strategies which are being utilized in multicultural teacher education. Such questions as the following need to be asked: is the sporadic use of a particular teaching strategy (i.e., role playing, values clarification, non-verbal communication, eating of an ethnic meal) going to help the teacher trainee develop a multicultural competency? Or, will the sporadic use of these teaching strategies only reinforce existing cultural stereotypes?

The National Council for Accreditation of Teacher Education requires that multicultural education be a component of accredited teacher education programs and some states, such as Florida, require the development of a multicultural competency for teacher certification.

These requirements should encourage colleges and universities to conduct research in the area of effective methods for helping teacher trainees develop a multicultural competency.

APPENDIX A

INTRODUCTORY STATEMENTS AND ORIENTATION SESSION

Director of Alpha culture, during the orientation session, said the following to teacher trainees who participated in cross culture simulation:

1. The purposes of the cross culture simulation Bafá Bafá are:
(a) to create a situation which allows individuals to explore the idea of culture; (b) to create feelings which are similar to those an individual will likely encounter when he/she travels to a different culture; and, (c) to give participants experience in observing and interacting with a different culture.
2. You will be divided into the Alpha culture and the Beta culture as soon as the orientation session is finished.
3. You will learn and practice your new culture. A person living in a culture, learns the different rules and reasons for various behaviors over his/her entire life. You will be asked to learn those rules in a very short period of time. The rules may seem complicated at first, but as you practice them they will appear clear and reasonable.
4. Each group is to select a person to travel to the other culture to observe the ways members of that culture behave. The

observer should try and figure out what rules govern the behavior of the other group by observing their actions. You are not to ask about those rules governing such actions; they are to be figured out through observation.

5. There will be an exchange of observers. Once the Alpha culture and the Beta culture are well established, the observers will travel to the other culture. They will be wearing a badge with the name of their home culture on it. Each observer will have approximately two minutes to learn as much as possible as he/she can about the foreign culture.
6. Observers will report on what they saw on the foreign culture. They will describe the ideas they have about the values, mores, and rules of the foreign culture. You will try to think of ways for the visitors to figure out the culture better.
7. Once each culture is re-established, visitors will be exchanged. Visitors will wear a badge with the name of their home culture on it. They will receive cards, chips or whatever is used in the culture visited. The purpose of the visit will be to interact successfully with the other culture.
8. When everybody has had a chance to visit, the simulation will be over. There will be a discussion period afterwards.

Note: Director of Alpha culture conducted orientation session as suggested by Shirts, 1977, pp. 8-10.

APPENDIX B

RULES BY WHICH THE ALPHA AND BETA CULTURES ARE GOVERNED

Rules for the Alpha culture:

The people in the Alpha culture are very friendly and relaxed. They love to enjoy and to develop friendships. However, it is understood that such friendships are to take place within a fairly strict set of rules. Alphas honor and respect older people. Females are considered to be owned by the men of the culture and strangers do not approach women unless they have received the approval of the oldest member of the group.

There is a basic transaction around which the members of the Alpha group engage in social activities. (The set of cards which contains a Tibber, a Blimmer, and a Stipper plus the chips are used in this basic transaction).

The behaviors to be observed, before and after the basic transaction are:

1. Before the matching transaction, each of the two persons involved in such transaction engage in small talk and they joke.
2. After the chips are picked up, more small talk takes place before a person moves to another transaction.
3. Each person touches the other at least once during the transaction. The handshake is not considered touching but as a means of keeping people at a distance.

4. Men always approach women, never the other way around.
Women may approach women.
5. No one approaches the female until his Alpha card has been initiated by the eldest member of the group. If such an approach is made, it is considered to be an insult to all the male members of the group and appropriate action should be taken, i.e., they might escort him out of the room.
6. If a person matches cards with the eldest member, the eldest always wins regardless of whether the cards match or not.

Rules for the Beta culture:

In the Beta culture, people work hard to earn as many points as possible by trading cards. The skill at this game comes from being able to figure out the sequence to go after and being able to drive a hard bargain.

Each member of the Beta culture is given a set of six cards at the beginning of the simulation. The cards are worth zero points until the person is able to get a sequence of seven cards (1, 2, 3, 4, 5, 6, 7) of the same color, then each card in the sequence counts the face value of the card or a total of 28 points. There is a shortage of 3s and 5s in all colors, otherwise there is an approximately equal number of cards of each number and color in the game. Once a person gets a seven card sequence in the same color, he/she can record his score on the chalkboard and pick up a new set of cards from the assistant director in the simulation. Visitors who come from

the Alpha culture into the game will have more cards than Beta members. They will have plenty of 3s and 5s.

Communication in the Beta culture is only carried out using the Beta language which consists of words and gestures. The Beta language is as follows:

1. "Yes," or agreement, is signified by touching the chin to the chest.
2. "No," is signified by raising both elbows sharply with the hands hanging loosely to the side.
3. "Say again," or repeat what you just said is indicated by moving a hand back and forth in front of the body about shoulder high.
4. If a person wants more than one card he indicates it by pumping his closed fist from head to shoulder for each card desired and then when he/she asks for cards he/she pauses before describing the second and third card desired.
5. Colors are always mentioned first and numbers second.
6. Cards being offered for trade are held up so the other person can see the numbers.
7. Instead of having a different word for each number, the Beta language pronounces a syllable for each unit of one. Syllables are made from any two of the person's initials plus one of the vowels attached to it. For instance, if your name were Brent Folsum, then you could indicate the number one by saying, "Ba," the number two by saying "BaFa," and the number three by saying "Bafa Ba" and so forth. Brent Folsum might

also choose to say the syllables Be, Bi, Bo, or Bu, and Fe, Fi, Fo, or Fu.

8. Colors are indicated by saying the first two letters of the color and adding a vowel. For example, Green--Gra, Blue--Bla, White--Wha, Yellow--Yea, Orange--Ora, etc.
9. In the Beta culture, it is the mark of stupidity and coarseness to keep track of the number of syllables by counting on one's fingers. If you see any member using his fingers, toes or in any way using a visible sign to keep track of the number of syllables, you should let him/her know that he/she is being gross and crude. This is quite important.
10. It is a great insult for a person to trade in any language but Beta while in Beta territory. If strangers press you to speak in English, they are to be avoided.

Note: Rules for Alpha and Beta cultures are to be found in Shirts' Bafá Bafá manuals and cassettes.

APPENDIX C THE WORLDMINDEDNESS SCALE

Choice Codes: SA--Strongly Agree SD--Strongly Disagree
 A--Agree D--Disagree
 MA--Mildly Agree MD--Mildly Disagree

Pro-worldmindedness items were assigned the following numbers:

SA (6) A (5) MA (4) MD (2) D (1) SD (0)

Anti-worldmindedness items were assigned the following numbers:

SA (0) A (1) MA (2) MD (4) D (5) SD (6)

- | | | | |
|---|----|---|----|
| 1. Our country should have the right to prohibit certain racial and religious groups from entering it to live. | SA | A | MA |
| | MD | D | SD |
| 2. Immigrants should not be permitted to come into our country if they compete with our own workers. | SA | A | MA |
| | MD | D | SD |
| 3. It would be a dangerous procedure if every person in the world had equal rights which were guaranteed by an international charter. | SA | A | MA |
| | MD | D | SD |
| *4. All prices for exported food and manufactured goods should be set by an international trade committee. | SA | A | MA |
| | MD | D | SD |
| *5. Our country is probably no better than many others. | SA | A | MA |
| | MD | D | SD |
| 6. Race prejudice may be a good thing for us because it keeps many undesirable foreigners from coming into this country. | SA | A | MA |
| | MD | D | SD |
| 7. It would be a mistake for us to encourage certain racial groups to become well-educated because they might use their knowledge against us. | SA | A | MA |
| | MD | D | SD |
| 8. We should be willing to fight for our country without questioning whether it is right or wrong. | SA | A | MA |
| | MD | D | SD |

*Pro-worldmindedness items

- | | | | | |
|------|--|----|---|----|
| 9. | Foreigners are particularly obnoxious because of their religious beliefs. | SA | A | MA |
| | | MD | D | SD |
| *10. | Immigration should be controlled by an international organization rather than by each country on its own. | SA | A | MA |
| | | MD | D | SD |
| *11. | We ought to have a world government to guarantee the welfare of all nations irrespective of the rights of any one. | SA | A | MA |
| | | MD | D | SD |
| 12. | Our country should not cooperate in any international trade agreements which attempt to better world economic conditions at our expense. | SA | A | MA |
| | | MD | D | SD |
| *13. | It would be better to be a citizen of the world than of any particular country. | SA | A | MA |
| | | MD | D | SD |
| *14. | Our responsibility to people of other races ought to be as great as our responsibility to people of our own race. | SA | A | MA |
| | | MD | D | SD |
| *15. | An international committee on education should have full control over what is taught in all countries about history and politics. | SA | A | MA |
| | | MD | D | SD |
| 16. | Our country should refuse to cooperate in a total disarmament program even if some other nations agreed to it. | SA | A | MA |
| | | MD | D | SD |
| 17. | It would be dangerous for our country to make international agreements with countries whose religious beliefs are antagonistic to ours. | SA | A | MA |
| | | MD | D | SD |
| *18. | Any healthy individual, regardless of race or religion, should be allowed to live wherever he wants to in the world. | SA | A | MA |
| | | MD | D | SD |
| 19. | Our country should not participate in any international organization which requires that we give up any of our national rights or freedom of action. | SA | A | MA |
| | | MD | D | SD |
| *20. | If necessary, we should be willing to lower our standard of living to cooperate with other countries in getting an equal standard for every person in the world. | SA | A | MA |
| | | MD | D | SD |
| 21. | We should strive for loyalty to our country before we can afford to consider world brotherhood. | SA | A | MA |

- | | | | | |
|------|--|----|---|----|
| 22. | Some races ought to be considered naturally less intelligent than ours. | SA | A | MA |
| | | MD | D | SD |
| *23. | Our schools should teach the history of the whole world rather than of our own country. | SA | A | MA |
| | | MD | D | SD |
| *24. | An international police force ought to be the only group in the world allowed to have armaments. | SA | A | MA |
| | | MD | D | SD |
| 25. | It would be dangerous for us to guarantee by international agreement that every person in the world should have complete religious freedom. | SA | A | MA |
| | | MD | D | SD |
| *26. | Our country should permit the immigration of foreign peoples even if it lowers our standard of living. | SA | A | MA |
| | | MD | D | SD |
| *27. | All national governments ought to be abolished and replaced by one central world government. | SA | A | MA |
| | | MD | D | SD |
| 28. | It would not be wise for us to agree that working conditions in all countries should be subject to international control. | SA | A | MA |
| | | MD | D | SD |
| 29. | Patriotism should be a primary aim of education so our children will believe our country is the best in the world. | SA | A | MA |
| | | MD | D | SD |
| *30. | It would be a good idea if all the races were to intermarry until there was only one race in the world. | SA | A | MA |
| | | MD | D | SD |
| *31. | We should teach our children to uphold the welfare of all people everywhere even though it may be against the best interests of our own country. | SA | A | MA |
| | | MD | D | SD |
| *32. | War should never be justifiable even if it is the only way to protect our national rights and honor. | SA | A | MA |
| | | MD | D | SD |

APPENDIX D

LEAST SQUARE MEANS FOR TREATMENT AND COMPARISON GROUPS

TREAT	Religion	Immigration	Government	Economics	Patriotism	Race	Education	War
0	15.91	11.71	7.87	10.26	8.20	14.29	11.83	10.31
1	15.97	12.41	8.50	11.43	9.48	15.58	12.27	11.14
PRET								
0	15.95	12.39	7.94	11.19	8.59	14.93	12.04	11.24
1	15.94	11.73	8.43	10.50	9.09	14.94	12.06	10.21

REFERENCES

- Adorno, T. W., Frenkel-Brunswick, E., Levinson, D. J., & Sanford, R. N. The authoritarian personality. New York: Harper and Row, 1950.
- Adult education training handbook for cultural awareness. Washington, D. C.: Bureau of Occupational and Adult Education, 1975. (ERIC Document Reproduction Service No. ED 110 628).
- Allman, R. W. A study of the social attitudes of college students. Journal of Social Psychology, 1961, 53, 33-51.
- Allport, G. W. The nature of prejudice. Garden City, N. Y.: Doubleday, 1954.
- Annual report for the fiscal year ended september 30. New York, N. Y.: Carnegie Corporation, 1979.
- Aragon, J. An impediment to cultural pluralism: Culturally deficient educators attempting to teach culturally different children. In M. D. Stent, W. R. Hazard, & H. N. Rivlin (Eds.), Cultural pluralism in education: A mandate for change. New York: Apoleton-Century-Crofts, Meredith Corporation, 1973.
- Baker, G. C. Multicultural training for student teachers. Journal of Teacher Education, 1973, 24, 4, 306-307.
- _____. Multicultural teacher education: The state of the art. Chicago, Illinois, 1978. (ERIC Document Reproduction Service No. ED 151 357).
- Baty, R. M. Education for cultural awareness. Riverside, Calif.: California University, 1971. (ERIC Document Reproduction Service No. ED 056 153).
- Bell, T. H. Foreword: Competency-based education and cultural pluralism. In C. A. Grant (Ed.), Sifting and winnowing: An exploration of the relationship between multicultural education and CBTE. Madison, Wisconsin: Teacher Corps Associates, University of Wisconsin, 1975.
- Bellon, J. Cultural awareness: One goal of international education. International Education, 1971, 1, 1, 28-34.
- Bennett, C. The preparation of pre-service secondary social studies teachers in multicultural education. High School Journal, 1979, 62, 5, 232-237.

- Bogardus, E. S. Measuring social distance. Journal of Applied Sociology, 1925, 9, 299-308.
- Boocock, S. S. An experimental study of the learning effects of two games with simulated environments. American Behavioral Scientist, 1966, 10, 2, 8-17.
- Brembeck, C. S., & Hill, W. H. (Eds.). Cultural challenges to education: The influence of cultural factors in school learning. Lexington, Mass.: D. C. Heath and Company, 1973.
- Bronaugh, J. The multicultural center: An innovative inservice program. Phi Delta Kappan, 1977, 59, 3, 204-205.
- Brown, I. C. Understanding other cultures. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963.
- Burger, H. C. Ethno-pedagogy: A manual in cultural sensitivity, with techniques for improving cross-cultural teaching by fitting ethnic patterns (2nd ed.). Albuquerque, New Mexico: Southwestern Cooperative Educational Laboratory, 1968.
- _____. Cultural pluralism and the schools. In C. S. Brembeck and W. H. Hill (Eds.), Cultural challenges to education: The influence of cultural factors in school learning. Lexington, Mass.: D. C. Heath and Co., 1973.
- Campbell, D. T., & Stanley, J. C. Experimental and quasi-experimental designs for research. Chicago: Rand McNally College, 1963.
- Clarke, K. B., & Clark, M. K. Skin color as a factor in racial identification of Negroes by pre-school children. Journal of Social Psychology, 1955, 11, 159-169.
- Cruikshank, D. R. The use of simulation in teacher education: A developing phenomenon. The Journal of Teacher Education, 1969, 20, 1, 23-26.
- _____. Teacher education looks at simulation: A review of selected uses and research results. In P. J. Tansey (Ed.), Educational aspects of simulation. Maidenhead, England: McGraw-Hill, 1971.
- Cruikshank, D. R., & Broadbent, F. W. The simulation and analysis of problems of beginning teachers (Project 5-0798). Washington, D. C.: Office of Education, 1968.
- _____. An investigation to determine effects of simulation training on student teaching behavior. Educational Technology, 1969, 9, 10, 50-54.

- Cubberly, E. P. Public education in the United States. Boston, Mass.: Houghton Mifflin Co., 1919.
- Dekock, P. Simulation and changes in racial attitudes. Social Education, 1969, 33, 2, 181-183.
- Erb, T. O. Construct validation of an instrument to measure teacher attitude toward the use of international content in the K-12 social studies curriculum (Doctoral dissertation, University of Florida, 1977). Dissertation Abstracts International, 1978, 39, 86 A. (University Microfilms No. 78-10946).
- Eysenck, H. J., & Crown, S. An experimental study in opinion-attitude methodology. International Journal of Opinion and Attitude Research, 1949, 3, 48-86.
- Ferrin, L. H., Howell, D., & Sandoval, C. Student/intern involvement in performance-based multi-cultural teacher education. In C. A. Grant (Ed.), Sifting and winnowing: An exploration of the relationship between multicultural education and CBTE. Madison, Wisconsin: Teacher Corps Associates, University of Wisconsin, 1975.
- Florida Teacher Certification Exam (Pamphlet). Tallahassee, Florida: Department of Education, n.d.
- Ford, R. N. Scaling experience by a multiple-response technique: A study of white-negro contacts. American Sociology Review, 1941, 6, 9-23.
- Fulbright, J. W. We're tongue-tied. Newsweek, July 30, 1979, 15.
- Gaffga, R. M. Simulation: A method of observing student teachers behavior (Doctoral dissertation, University of Tennessee, 1967). Dissertation Abstracts International, 1967, 28, 3928 A. (University Microfilms No. 68-03739).
- Garrison, K. C. Worldminded attitudes of college students in a southern university. Journal of Social Psychology, 1961, 54, 147-153.
- Gayles, A. R. The multicultural approach to designing an effective program of professional laboratory experiences. Orlando, Florida, 1975. (ERIC Document Reproduction Service No. ED 115 602).
- Gold, M. J. Pressure points in multicultural education. In M. J. Gold, C. A. Grant, & H. Rivlin (Eds.), In praise of diversity: A resource book for multicultural education. Washington, D. C.: Teacher Corps, Association of Teacher Educators, 1977.
- Gollnick, D. M. Multicultural education: The challenge for teacher education. Journal of Teacher Education, 1977, 28, 3, 57-59.

- Goodman, M. E. Race awareness in young children. New York: Collier Books, 1964.
- Grambs, J. D. Intergroup education. Englewood Cliffs, N. J.: Prentice-Hall Inc., 1968.
- Grant, C. A. The mediator of culture: A teacher role revisited. Journal of Research and Development in Education, 1977, 11, 1, 102-117.
- Grice, H. H. The construction and validation of a generalized scale designed to measure attitudes toward defined groups. Bulletin Purdue University, 1934, 25, 37-46.
- Guetzkow, H. A. Training for policy-making roles through organizational simulation. Proceedings, 14th annual conference, American society of training directors, May 1958, 76-79.
- _____. A use of simulation in the study of inter-nation relations. Behavioral Science, 1959, 4, 3, 183-191.
- Hall, E. T. The silent language. Greenwich, Conn.: Fawcett Publications, Inc., 1959.
- Harlan, H. H. Some factors affecting attitude toward Jews. American Sociology Review, 1942, 7, 816-827.
- Harty, H. Pre-service teacher's eye view of pre-student teaching community-based experiences in poor minority settings. Teacher Education Forum, 1975, 3, 4, 1-42.
- Hemphill, J. K., Griffiths, D. E., & Frederiksen, N. Administrative performance and personality. New York: Teachers College, Columbia University, 1962.
- Hinckley, E. D. The influence of individual opinion on construction of an attitude scale. Journal of Social Psychology, 1932, 3, 283-296.
- Horowitz, R. E. Racial aspects of self-identification in nursery school children. Journal of Psychology, 1939, 7, 91-99.
- Hovland, C. I., Lumsdaine, A. A., & Sheffield, F. D. Experiments on Mass Communication (Vol. III). Princeton, N. J.: Princeton University Press, 1949.
- Imig, D. Man to mankind: The international dimension of teacher education. Athens, Georgia, 1972. (ERIC Document Reproduction Service No. ED 075 447).

- Instructional development institute for teacher trainers: Applications of technology and the newer media for cross-cultural groups. East Lansing, Michigan: Michigan State University, 1969. (ERIC Document Reproduction Service No. ED 032 285).
- Jackson, S., & Klinger, R. Cross-cultural attitude inventory: Test manual. Austin, Texas: Urban Research Group, Inc., 1971.
- Johnson, G. An experimental projective technique for the analysis of racial attitudes. Journal of Educational Psychology, 1950, 41, 257-278.
- Kentworthy, L. The international dimension of education. Asilomar, California, 1970. (ERIC Document Reproduction Service No. ED 039 202).
- Kersh, B. Y. The classroom simulator. Audiovisual Instruction, 1961, 6, 447-448.
- _____. The classroom simulator. Journal of Teacher Education, 1962, 13, 109-110.
- _____. Classroom simulation, a new dimension in teacher education (Title VII NDEA project 886). Monmouth, Oregon: Training Research Division, Oregon State System of Higher Education, 1963.
- King, E. W. Worldmindedness: The world context for teaching in the elementary school. Denver, Colorado: Denver University Press, 1971.
- Klassen, F. H., & Gollnick, D. M. (Eds.). Pluralism and the American teacher: Issues and case studies. Washington, D. C.: American Association of Colleges for Teacher Education, 1977.
- Klassen, F. H., Gollnick, D. M., & Osayande, K. I. M. Guidelines toward implementation of multicultural teacher education (Document prepared for AACTE's project Knowledge Interpretation Program: Training Educators to Provide Educational Equity). Washington, D. C.: AACTE, 1979.
- Kogan, N., & Downey, J. F. Scaling norm conflicts in the area of prejudice and discrimination. Journal of Abnormal Social Psychology, 1956, 53, 292-295.
- Koslin, S. Classroom racial balance and students' interracial attitudes. Minneapolis, Minnesota, 1970. (ERIC Document Reproduction Service No. ED 040 266).
- Landes, R. Culture in American society. New York: John Wiley and Sons, Inc., 1965.

- Levinson, D. J. An approach to the theory and measurement of ethnocentric ideology. Journal of Psychology, 1949, 28, 19-39.
- Levinson, D. J., & Sanford, R. N. A scale for the measurement of anti-Semitism. Journal of Psychology, 1944, 17, 339-370.
- Likert, R. A. Technique for the measurement of attitudes. Archives of Psychology, 1932, 140, 1-55.
- Marten, M., Denfee, M., & Buffie, E. Simulation-focus on decision making. Bulletin of the School of Education, Indiana University, 1970, 46, 3-48.
- Mohr, P. B. Competency-based teacher education. Tallahassee, Florida: School of Education, Florida A & M University, 1973. (ERIC Document Reproduction Service No. ED 097 334).
- Murphy, G. (Ed.). Human nature and enduring peace. Boston: Houghton-Mifflin, 1945.
- Newman, A. J., & Ware, W. Aesthetic perception and worldmindedness-- A research note. The New Era, 1976, 57, 2, 45-46; 48.
- Nine Curt, C. J. Teacher training pack for a course on cultural awareness. Cambridge, Ma.: National Assessment and Dissemination Center for Bilingual/Bicultural Education, 1976.
- No one model American. Journal of Teacher Education, 1973, 24, 4, 264-265.
- Noesjirwan, J., & Freestone, C. The culture game: A simulation of culture shock. Simulation and Games, 1979, 10, 2, 189-206.
- Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. The measurement of meaning. Urbana, Ill.: University of Illinois Press, 1957.
- Paulsen, F. R., & Wilson, H. B. The cultural literacy laboratory: A new dimension in multicultural teacher education. Tucson, Arizona: University of Arizona, 1974. (ERIC Document Reproduction Service No. ED 087 698).
- Politzer, R. L. Some reflections on the role of linguistics in the preparation of bilingual/cross cultural teachers. Los Angeles, California: California State University, 1978. (ERIC Document Reproduction Service No. ED 161 274).
- Prentice, N. M. Critique and notes: The comparability of positive and negative items in scales of ethnic prejudice. Journal of Abnormal Social Psychology, 1956, 52, 420-421.

- Radke, M. J., & Sutherland, J. Children's concepts and attitudes about minority American groups. Journal of Educational Psychology, 1949, 46, 449-468.
- Radke, M. J., & Trager, H. G. Children's perception of the social roles of Negroes and Whites. Journal of Psychology, 1950, 29, 3-33.
- Rivlin, H. N., & Gold, M. J. Teachers for multicultural education. New York, N.Y.: Fordham University, 1975.
- Robinson, A. A., & Mosrie, D. Florida's new teacher certification law. Phi Delta Kappan, 1979, 61, 4, 263-264.
- Rosander, A. C. An attitude scale based upon behavior situations. Journal of Social Psychology, 1937, 8, 3-16.
- Sampson, D. L., & Smith, H. P. A scale to measure world-minded attitudes. The Journal of Social Psychology, 1957, 45, 99-106.
- Schmeidler, G., & Windholz, G. A nonverbal indicator of attitudes: Data from Thailand. Journal of Cross-Cultural Psychology, 1972, 3, 383-394.
- Schnapper, M. Culture simulation as a training tool. In D. S. Hoopes & P. Ventura (Eds.), Intercultural Sourcebook: Cross-cultural training methodologies. La Grange Park, Illinois: Intercultural Network, Inc., 1979.
- Schuman, H., & Harding, J. Prejudice and the norm of rationality. Sociometry, 1964, 27, 353-371.
- Schwartz, L. L., & Isser, N. Increasing ethnic sensitivity: Why and how. Toronto, Canada, 1978. (ERIC Document Reproduction Service No. ED 159 273).
- Sedlacek, W. E., Brooks, G. C., & Chaples, E. A. Problems in measuring racial attitudes: An experimental approach. College Park, Maryland: University of Maryland, 1971. (ERIC Document Reproduction Service No. ED 058 330).
- Seelye, H. N. An objective measure of biculturation: Americans in Guatemala, a case study. Modern Language Journal, 1969, 53, 503-514.
- Shaw, M. E., & Wright, J. M. Scales for the measurement of attitudes. New York: McGraw-Hill Book Co., 1967.
- Shirts, G. Bafá Bafá: A cross culture simulation (Simile II). Del Mar, California, 1977.

- Smith, B. O., Cohen, S. B., & Pearl, A. Teachers for the real world. Washington, D. C.: American Association of Colleges of Teacher Education, 1969.
- Smith, H. P. Do intercultural experiences affect attitudes? Journal of Abnormal Social Psychology, 1955, 51, 469-477.
- Smith, M. H. Attitude toward Soviet Russia: The standardization of a scale and some distributions of scores. Journal of Social Psychology, 1946, 23, 3-16.
- Sprague, H. T., & Shirts, R. G. Exploring classroom uses of simulation. La Jolla, California: Western Behavioral Sciences Institute, 1966.
- Standards for accreditation of teacher education. Washington, D. C.: National Council for Accreditation of Teacher Education, 1977.
- Statistical Analysis System. Raleigh, North Carolina: Statistical Analysis System Institute, Inc., 1979.
- Steckler, G. Authoritarian ideology in Negro college students. Journal of Abnormal Social Psychology, 1957, 54, 396-399.
- Susskind, J. L. Teaching ethnic studies. Social Studies Journal, 1978, 7, 1, 26-28.
- Sutman, F. X., Sandstrom, E. L., & Shoemaker, F. Educating personnel for bilingual settings: Present and future. Philadelphia, Pennsylvania: AACTE in collaboration with Multilingual Education Resource Information and Training Center, Temple University, 1979.
- Taba, H. Leadership training in intergroup education: Evaluation of workshops. Washington, D. C.: American Council of Education, 1953.
- Tansey, P. J. Simulation techniques in the training of teachers. Simulation and Games, 1970, 1, 3, 281-303.
- _____. A primer of simulation: Its methods, models, and application in education processes. In P. J. Tansey (Ed.), Educational Aspects of Simulation. London: McGraw-Hill, 1971.
- Tansey, P. J., & Unwin, D. Simulation and gaming in education. London: Metlween Educational Ltd., 1969.
- Taylor, B. The intern: Making decisions about education programs with a multicultural focus. In C. A. Grant (Ed.), Sifting and winnowing: An exploration of the relationship between multicultural education and CBTE. Madison, Wisconsin: Teacher Corps Associates, University of Wisconsin, 1975.

Taylor, H. A report on the conference on world education. Washington, D. C.: American Association of Colleges of Teacher Education, 1967.

_____. The world and the American teacher: The preparation of teachers in the field of world affairs. Washington, D. C.: American Association of Colleges of Teacher Education, 1968.

Thompson, K. S., Friedlander, P., & Oskamp, S. PRAM: A change in racial attitudes of preschool children. Claremont, California, 1967. (ERIC Document Reproduction No. ED 037 510).

Thurstone, L. L. The measurement of social attitudes. Journal of Abnormal Social Psychology, 1931, 26, 249-269.

Twelker, P. A. Prompting as an instructional variable in classroom simulation. Monmouth, Oregon: Oregon State System of Higher Education, 1966.

_____. Classroom simulation and teacher preparation. The School Review, 1967, 75, 2, 197-204.

_____. Simulation and media. In P. J. Tansey (Ed.), Educational aspects of simulation. London: McGraw-Hill, 1971.

Venditti, F. P. Handbook for teaching in Valleybrook Elementary School: A simulation game focusing upon problems of the racially desegregated. Knoxville, Tennessee: College of Education, University of Tennessee, 1969.

Vlcek, Ch. Classroom simulation in teacher education. Audiovisual Instruction, 1966, 11, 2, 86-90.

Weil, M., & Joyce, B. Social models of teaching. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1978.

Wilson, H. B., Featherston, J., & Gillespie, J. Cultural Literacy Inventory. Tucson, Arizona: College of Education, University of Arizona, 1972.

Ziller, R. C., Hagey, J., Smith, M., & Lang, B. H. Self-esteem: A self-social construct. Journal of Consulting and Clinical Psychology, 1969, 73, 84-95.

Zirkel, P. A., & Greene, J. F. Cultural attitude scales: A step toward determining whether programs are bicultural as well as bilingual. In A. Simões, Jr. (Ed.), The bilingual child. New York: Academic Press, 1976.

BIOGRAPHICAL SKETCH


Minerva González-Miles was born in Mexico City, Mexico, in 1940. She attended Mexico City public schools and graduated valedictorian from National School for Teachers in 1958. As a member of the Experiment in International Living, she lived with American families in Kansas, California and Vermont during the Winters of 1958-1960.

In 1961, Ms. González-Miles received a scholarship from the Institute of International Education to attend New Paltz State College in New York for one year. She received a Bachelor of Science in Education degree from Western Connecticut State College in 1971 and was granted a master's in education with a concentration in language arts from the same college in 1974. In 1978, Ms. González-Miles was awarded a two year United States Department of Education, Title VII Bilingual Education Teacher Trainer Fellowship.

Ms. González-Miles' teaching experience ranges from elementary school in Mexico City to junior and senior high school and adult education courses in Connecticut and Florida. She has also conducted teacher workshops on Mexican culture in Florida. Major areas of interest for Ms. González-Miles have been languages, intercultural communications and traveling in the United States and abroad.

Ms. González-Miles married Donald Miles at New Paltz, New York, in 1962. They have two independent and dynamic young adults named Julie and Richard.

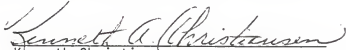
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Arthur J. Lewis, Chairman
Professor of Instructional Leadership
and Support

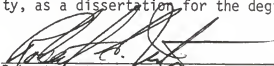
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Clemens Hallman, Cochairman
Professor of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Kenneth Christiansen
Professor of Journalism and Communications

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Robert Dester
Professor of Foundations of Education

This dissertation was submitted to the Graduate Faculty of the Division of Curriculum and Instruction in the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December 1980


Dean for Graduate Studies and Research